HONG KONG

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MEDICAL & SANITARY REPORT

FOR THE YEAR

1934

BY

W. B. A. MOORE,

L.R.C.P., L.R.C.S., (IRE.), D.T.M. & H. (LOND.).

Acting Director of Medical and Sanitary Services

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INDEX.

CONTENTS.

INDEX.

CONTENTS.

INDEX.

CONTENTS.

INDEX.

CONTENTS.

ANNUAL MEDICAL REPORT FOR THE YEAR ENDING 31st DECEMBER, 1934.

Introduction.

Geographical Features.

In order to give a clear impression of the Public Health conditions obtaining in Hong Kong, it is necessary first to describe the situation of the Colony, its geographical features, its climate, the nature of the population, the housing conditions and the bearing old Chinese traditions, beliefs, and customs, have on the question of co-operation with the authorities in the promotion and preservation of the Public Health. It is also desirable to indicate the various organisations which together make up the Public Health machinery.

2. The Territory under British jurisdiction includes the Colony Proper, namely, the Island of Hong Kong with the Peninsula of Kowloon, and the New Territories. In this Report the term Colony means the Colony Proper. The area of the Island is 32 square miles—that of Kowloon is 2.2/3rd. square miles while the New Territories have approximately 300 square miles.

3. Situated between 22°9′ and 22°37′ North Latitude the area under discussion is just within the northern limits of the tropics. It is in fact practically on the same level as Calcutta. It may be said to form the lower extremity of the left bank of the estuary of the Canton River, at the head of which is the City of Canton and on an island in which stands the Portuguese Colony of Macao.

4. Topographically the Island of Hong Kong and the Peninsula of Kowloon may be described as a series of granite ridges separated by narrow valleys and having here and there flat areas facing the sea. The New Territory is of similar formation with some fairly wide valleys towards the north and west. The features are such that flats suitable for town sites are few in number and limited in extent. In the Island the only level of any size is that on which the City of Victoria stands and this does not cover more than one square mile. With regard to Kowloon, not more than one half is flat and convenient for street formation.

The Climate.

5. Situated just within the northern limits of the tropics and occupying an insular position immediately south of the great land mass of China, Hong Kong's climate is very materially influenced by the direction of the prevailing winds. The North East Monsoon blows from November until April and during this period the weather is dry and cool and invigorating. From May until October, the season of the South West Monsoon, the air is highly charged with moisture and the climate is hot, muggy and enervating. July, August, and September are marked by atmospheric disturbances which now and then culminate in typhoons or cyclones accompanied by blinding sheets of rain.

6. The mean annual temperature is 72°F. During the summer months the average temperature is 87°F, and there is little variation throughout the twenty-four hours. Situated on the north side of the Island the City of Victoria gets all the heat and moisture of the South West Monsoon but not the breeze, which is cut off by the mountains behind the town. During the winter months the range of temperature is from 70°F. to 45°F. with an average 66°F. necessitating for comfort the wearing of warm-clothes and the provision of fires in the houses. Frost is practically unknown.

7. The average yearly rainfall is 85.72 inches. As might be expected most of the rain falls in the summer months.

Population and its distribution.

8. Hong Kong which depends for its prosperity on its trade with China has three fourths of its population concentrated in the cities of Victoria and Kowloon which may justly be described as one city divided into two by the harbour. Outside this city there is little of commercial importance and Hong Kong as a Colony might almost be termed the city and port of Greater Hong Kong.

9. With regard to the numbers, except in census years, there are no accurate statistical figures, the great movement to and from the Colony and the facility with which the border is crossed preventing accurate checking. Hong Kong being the principal entrepôt for South China and its harbour one of the busiest in the world, every day on an average 5,000 to 6,000 individuals pass to and from China by river steamer or by rail and there are others who arrive and depart by junks or smaller vessels. During times of political unrest in China many thousands from the mainland sojourn in the Colony, some of whom return to their homes when conditions are more settled, others remaining attracted by the opportunities offered for employment.

10. The total civil population of the Colony is estimated to exceed 900,000, of which some 400,000 reside in the City of Victoria, 300,000 in the town of Kowloon, over 100,000 on boats in the waters of the Colony and the remainder in villages.

11. There are over 20,000 local boats registered at the Harbour Office, the occupants of each of which vary in number from four to forty, according to the size and character of the craft. The Harbour Authorities believe the population to be 150,000 and certainly 100,000 cannot be an overestimate.

12. Of the total population over 97 per cent are Chinese. According to the Census Report one third of the whole were born in the Colony. The remainder are mostly those who have come from China attracted by the facilities offered for employment. Many return to their native towns or villages when too ill or too old for labour. Through this exodus the death rate in the Colony is considerably lower than it otherwise would be.

13. The masses are working people belonging to what is commonly described as the coolie class. The Chinese of the upper classes, many of whom have received a western education, are mostly engaged in commerce but there are among them a number of professional men including both lawyers and doctors.

Housing Conditions.

14. The town plans of Victoria and Kowloon are widely different: the former may be described as old-fashioned and irregular, the latter as modern and regular.

15. The site on which Victoria stands is a narrow strip of land 4 miles long by 1/5th. to 2/5ths. of a mile broad lying at the northern foot of the mountain and separating it from the sea. The total area of available space is about one square mile or 1/32nd. of that of the whole island. Limited in front by the sea and behind by the steep slopes of the mountain there remains hardly an inch of space which has not been occupied for one purpose or another.

16. That portion of the town where the working classes reside and described in the Census Report as 'Health Districts 4, 5, 6, 6A, 7, 7A, 8 (restricted), 9 and 10A (restricted), forming the lower part of the town fronting on Victoria Harbour' has an area of roughly 200 acres and in this space nearly 200,000 individuals find accommodation giving a density of approximately 1,000 per acre.

17. The conformation of the site with its rapid rise of land near the sea-shore led in the early days to the erection of houses on the narrow strip of land near the harbour and extending a little way up the lower slopes of the mountain the houses being separated by narrow lanes and alleyways. When the population was small and the houses only one and two stories in height, the situation was not unsatisfactory. As the population increased the houses were heightened to four and five stories without any corresponding widening of the spaces separating them.

18. Year by year the population continued to increase, immigration being accelerated by unrest in China. Victoria was the centre of trade and therefore the centre of attraction. There was little room to build further accommodation and the newcomers had to squeeze into the already overcrowded premises. Rooms were divided into cubicles which to a certain extent provided privacy but which interfered both with lighting and ventilation.

19. In some houses there are tiers of bunks placed against the walls, in others the rooms are divided into cubicles or cabins each measuring perhaps eight feet by eight feet and having partitions 6 feet in height. There cabins are not the temporary abodes of persons on a voyage but the more or less permanent homes of the people. There is little or no room for kitchens, and latrine accommodation is often limited to pail closets on the roofs of the buildings.

20. Year by year the Sanitary Department and the Building Authority have made efforts to improve the situation and with a considerable amount of success both as regards palliative and radical treatment. The task almost sisyphean in itself was rendered more difficult by paucity of water and by opposition put forward both by property owners and the occupiers.

21. It goes without saying that the maintenance of a satisfactory standard of sanitation under such conditions is a most difficult problem and one which cannot be solved without the willing co-operation of the people. One thing is certain, so long as buildings are overcrowded and insanitary, no amount of external sanitation will give immunity from disease.

22. Within the last few years some 70 acres have been added to the eastern section of the town by reclamation from the sea. This locality which is known as the Praya East Reclamation has

been laid out in accordance with modern town planning principles, with wide streets, short lots and back-lanes. The greater part of it is now covered with dwelling houses which satisfy sanitary requirements. The density here is not more than 300 per acre.

23. Kowloon which is a comparatively new city has been town-planned on up-to-date lines with straight broad streets and back lanes. During the intercensus period 1921-1931 it increased in population 113.06 per cent. It is still rapidly growing and in a few years will equal Victoria or even exceed it. According to the census the density of population is 300 per acre.

Influence of traditional beliefs.

24. The traditional beliefs of the uneducated Chinese as to the cause of diseases, the means of spread and the factors which affect its course are so at variance with modern teaching that there is little chance of promoting voluntary co-operation between them and the authorities in the matter of the prevention and control of disease until they can be brought to understand the true nature of the problems and are conscious of the usefulness of the measures advocated. The proximity of China and the constant intercourse make it harder to overcome prejudices than is the case in countries further afield. The greatest hope lies in propaganda and education brought to the homes through public health nurses working as district visitors or in infant welfare centres and school welfare centres.

25. Propaganda which does not arouse the interest of the mother and her children has little practical value. However, leaders of opinion in China and leaders of Chinese thought in Hong Kong are making vigorous efforts to promote public health and public welfare along lines which have proved successful in the Occident, and the outlook is far more hopeful than was the case a few years ago when Chinese thought on matters of health was unduly swayed by old traditions and theories.

Quarantine impractical between Hong Kong and the River Ports.

26. So closely related are Hong Kong, Canton, Macao and the River Ports, in the matter of trade, and such is the amount of traffic both human and goods which passes between them that up to date it has been found impossible to devise any system of quarantine which would effectually safeguard one city against introduction of disease from the other and at the same time preserve that freedom of commercial movements on which

these cities depend for prosperity. It has been deemed best to treat them as forming one unit, as suburbs the one of the other, and to strive for a working agreement between the various health organisations to the end that some means, other than imposing restrictions against a whole port, may be found to prevent the spread of infection.

The Government Organisation for the promotion and maintenance of the Public Health.

27. The Colony has no 'municipality' in the ordinary accepted sense of the term, the Governor himself being head of the city and head of the port. The functions of a Municipal Council are included in the functions of the Legislative Council. The Colonial Heads of Department perform the duties which in a municipality would be performed by Municipal Heads of Department.

28. The Director of Medical and Sanitary Services is the official adviser to Government on all medical and sanitary matters and is the Officer responsible to Government for the Public Health of the Colony. Under his direction come the Government Hospital Organisation, the Inspection of Chinese Hospitals and Chinese Dispensaries, the Medical Inspection of Schools, the Bacteriological Institute, the Analytical Laboratory, Anti-malarial Activities, Vaccination, Quarantine and Port Health Work, Social Hygiene Work, Maternity and Child Welfare Work, and the Registration of Births and Deaths.

29. The Sanitary Department which is distinct from and independent of the Medical Department has at its head a layman, an officer of the Cadet Service. This Department does the work usually performed by the Health Department of a Municipality and in addition deals with all matters connected with scavenging and conservancy. Attached to this department are Medical Officers of Health who are seconded from the Medical Department, two Veterinary Surgeons and fifty-six European Sanitary Inspectors.

30. There is a Sanitary Board composed of officials and non-officials whose powers and responsibilities are laid down in the Public Health and Buildings Ordinance 1903 and which acts as an advisory body to the Head of the Sanitary Department who is ex-officio chairman of the Board. The Board has no direct control over the Department. The functions and powers of the Board and the Department are limited to the Colony and to that portion of the New Territories adjacent to Kowloon which is known as New Kowloon.

31. The present machinery for the promotion of the Public Health is complex in that responsibility for the organisation of energy both for the cure and the prevention of disease is divided among a number of units, governmental and non-governmental, which operate more or less independently of one another. This state of affairs will however shortly be rectified by the passage of new ordinances which will replace not only the Public Health and Buildings Ordinance of 1903 but also the Sale of Food and Drugs Ordinance 1896, and portions of the Merchant Shipping Ordinance 1899.

32. The Public Works Department is the Authority under the Waterworks Ordinance. The Sanitary Department is responsible for the carrying out of the provisions of the Public Health and Buildings Ordinance except in so far as it refers to buildings, drainage and sewerage, wells and pools, which are dealt with by the Public Works Department. The Sanitary Department also deals with the Sale of Food and Drugs Ordinance. The Boarding House Ordinance, which controls lodging houses, boarding houses and hotels, and the Factory and Workshops Ordinance are under the authority of the Secretary for Chinese Affairs. The Births and Deaths Registration Ordinance is administered by the Medical Department. The Summary Offences Ordinance is the concern of the Police.

Transport of the Sick.

33. Motor Ambulances, garaged at the Fire Station, are controlled by the Police and Fire Department. Hand Ambulances are operated by the Sanitary Department. The Tung Wah Hospital and the Tung Wah Eastern Hospital each has a motor ambulance of its own and so has the St. John Ambulance Brigade.

Medical Relief.

34. Provision of medical relief is furnished by the Government, by Chinese Benevolent Institutions and by Christian Missions.

35. The following table shows the principal institutions affording medical relief to the civil population :—

	Accommodation.	Authority in Control.
Government Institutions :—		
Government Civil Hospital	246 beds.	Medical Department.
Victoria Hospital	74 ,,	do.
Kowloon Hospital	140 ,,	do.
The Tsan Yuk Hospital ...	60 ,,	do.
Infectious Diseases Hospital	26 ,,	do.
Gaol Hospital	30 ,,	do.
Taipo Dispensary	—	do.
Un Long Dispensary	—	do.
Lady Ho Tung Welfare Centre	—	do.
Ruttonjee Dispensary	—	do.
Sai Kung Dispensary	—	do.
Tai O Dispensary	—	do.
Wanchai Maternity & Infant Welfare Centre	—	do.
Kowloon Infant Welfare Centre	—	do.
V. D. Clinic—Kowloon	—	do.
Chinese Benevolent Institutions :—		
The Tung Wah Hospital ...	451 beds.	Chinese Committee.
The Tung Wah Eastern Hospital	260 ,,	do.
The Kwong Wah Hospital	325 ,,	do.
The Tung Wah Infectious Diseases Hospital	60 ,,	do.
The Chinese Eastern Maternity Hospital	31 ,,	Special Chinese Committee.
The Chinese Public Dispensaries (9 in number)	—	do. for each.
Mission Hospitals and War Memorial Nursing Home :—		
Alice Memorial & Affiliated Hospitals	126 beds.	London Missionary Society.
Matilda Hospital	50 ,,	Special Committee.
The French Hospital.....	110 ,,	French Mission.
The Italian Hospital.....	18 ,,	Canossian Mission.
War Memorial Nursing Home	50 ,,	Special Committee.
Haw Par Hospital— Cheung Chau	50 ,,	St. John Ambulance Association.

Non-Government Organisations engaged in Public Health Works.

36. In addition to the Government organisation there are in the Colony a number of Benevolent Societies and Associations whose activities in the cause of public health are of great benefit to the community. The chief among these are:—the Tung Wah Hospital Charity, the Chinese Public Dispensaries, the various Missionary Societies, the Society for the Protection of Children, the St. John Ambulance Association, the St. John Ambulance Brigade, the Y.W.C.A. and the Y.M.C.A.

37. A description of the Tung Wah Hospital and the Chinese Public Dispensaries will be found in the body of the report.

38. The St. John Ambulance Association teaches first aid and home nursing and issues certificates after examination to successful candidates. Many hundreds of certificates have been issued. Under the aegis of the Association a number of centres have been established in the New Territories, staffed by full time Nurse-Midwives. These include a hospital at Cheung Chau, three small maternity Hospitals with Dispensaries attached and six separate Dispensaries.

39. The St. John Ambulance Brigade which is distinct from the Association is a body which practices in the field the theory taught by the latter. The Brigade which holds a strong position in the Colony does excellent work both in the training of personnel and in the performance of first aid duties. The Brigade renders valuable assistance to the Government especially with regard to vaccination and propaganda.

Medical Education.

40. The Faculty of Medicine of the University of Hong Kong provides a six years' course in premedical and medical sciences leading to the degrees of Bachelor of Medicine and Bachelor of Surgery which are awarded on examination. The clinical teaching is carried out at the Government Civil Hospital and Tsan Yuk Maternity Hospital. In the former institution 123 beds are allotted to the University, the Professors of Medicine and Surgery have 48 beds each, and the Professor of Obstetrics has 19 for Maternity and 8 for Gynaecological cases. In addition the Professor of Obstetrics has all the patients at the Tsan Yuk Hospital under his care, which gives him a total of 65 beds for Maternity and 22 for Gynaecological patients. The three Professors working at the Civil Hospital are Consultants to the Government and have been appointed respectively Physician, Surgeon and Obstetric Physician to the Hospital. In addition to the professors several officers of the Government Medical Service hold teaching appointments on the Staff of the University. The degrees of the Medical Faculty are recognised by the General Medical Council for registration in Great Britain.

41. Courses of training for nurses and midwives have been established at a number of hospitals in the Colony. Examinations are held and certificates issued by the Midwives Examination Board and by the Nurses Examination Board.

Progress with regard to Reorganisation and Expansion.

42. During the year a Committee, under Chairmanship of the Secretary for Chinese Affairs, was appointed by His Excellency the Governor, to examine and report on the draft public health bills which had been prepared by the Attorney General and the Director of Medical and Sanitary Services to form the basis of the scheme for reorganisation of the Medical and Sanitary Services. As a result of the Committee's report a number of changes were made in the draft legislation. At the end of the year the bills were still under consideration by Government.

43. The slump in trade with the consequent reduction of revenue continued to retard progress in reorganisation and expansion.

44. The erection of a new infectious diseases hospital and a new mental hospital had again to be postponed and the model health centre planned for the Western district of Victoria and intended as a field health station for the practical instruction of undergraduates could not be built.

45. It was found impossible to include in the estimates provisions for a Senior Health Officer, an Opthalmologist and a Dentist.

46. However in spite of the severe financial handicap substantial advancements were made in a number of directions in the Island of Hong Kong, the Kowloon Peninsula and the New Territories.

47. *Staff increase.*—The Staff was increased by one Chinese Lady Medical Officer, 8 European Nursing Sisters, 13 Chinese Nurses, 10 Chinese Dressers, 1 European Mental Nurse, 2 Chinese School Nurses, 2 Midwives, 1 European Radiographer, 7 Clerks, 1 Chinese Probationer Laboratory Assistant, and the staff of Tsan Yuk Hospital, *i.e.* 1 Lady House Officer, 1 European Secretary, 1 Matron, 1 Asst. Matron, 4 Midwives, 12 Pupil Midwives, 10 Amahs, 2 Cooks, 1 Messenger, 1 Watchman.

48. *New Government Civil Hospital.*—The work on the new Government Civil Hospital made good progress and much of the steel work of the main building is now in position.

49. *Eastern District Health Centre.*—Towards the end of the year work was commenced on a health centre for the Eastern District of Victoria. When finished the building will contain accommodation for an infant welfare clinic and centre, a school

clinic, a V.D. clinic, a general clinic and a dispensary. This Centre is being built by a group of benevolent minded Chinese gentlemen who will present it to Government on its completion.

50. *Kowloon Hospital Extension.*—During the year the following buildings were completed.

(*a*) a general block of two wards having a total accommodation of 48 beds.

(*b*) a new block for accommodation of the increased staff of Sisters and Nurses.

(*c*) quarters for a second resident medical officer.

A start was made on a new and commodious out-patient department containing accommodation not only for general out-patient activities but for the treatment of venereal diseases.

51. *The Kowloon Infant Welfare Centre.*—The ground floor of a large private house in the central district of Kowloon was leased and altered to make it suitable for an Infant Welfare Centre. This Centre was opened on the 1st of June.

52. *Ship Fumigation and Disinfection.*—Negotiations for the purchase of the plant of the Fumigation Bureau which commenced in the early part of the year were completed in August and the plant and the staff were transferred to the Port Health Branch which is now responsible for the fumigation and disinfection of shipping.

53. *The Tsan Yuk Maternity Hospital.*—The Tsan Yuk Maternity Hospital which had been built, equipped and administered by the Committee of the Western Chinese Public Dispensary and which was presented to Government by that Committee was taken over by the Medical Department on the 1st of January.

54. *The Lady Ho Tung Welfare Centre.*—The Lady Ho Tung Welfare Centre built and equipped for Government through funds donated by Sir Robert and Lady Ho Tung and situated at the most northerly point on the circular road surrounding the New Territory mainland was opened in May.

55. *The Ruttonjee Dispensary.*—This Dispensary situated at the 12th mile village of Sham Tseng and presented to the Government by Mr. H. Ruttonjee was opened in January.

56. *Tai-O Dispensary.*—A dispensary was opened in July at Tai-O, a fishing village of some 5,000 inhabitants situated on the extreme West of Lantao Island.

57. *Sai Kung Dispensary.*—A dispensary was opened in July at Saikung, a fishing village situated on the east coast of the Northern Territory and easily accessible only by sea.

SECTION I.

Administration.

58. The total authorised establishment of the Medical Department for the year 1934 was as follows:—

Administrative Staff.

The Director of Medical and Sanitary Services.....	1
Deputy Director of Medical and Sanitary Services ...	1

Clerical Staff.

Secretary	1
Stenographer	1
Accountant	1
Clerks Class I	1
,, ,, III	4
,, ,, IV	1
,, ,, V	8
,, ,, VI	16

Investigative Division.

A. Bacteriological Institute.

Bacteriologist	1
Assistant Bacteriologist.....	1
Senior Laboratory Assistant.....	1
Laboratory Assistants	4
Laboratory Assistant (Probationer).....	1

B. Malaria Bureau.

Malariologist	1
Assistant to Malariologist	1
Malaria Inspectors	4
Malaria Inspector (probationer)	1

Division of Chemical Analysts.

Government Analyst	1
Assistant Analysts	3
Assistant Analyst (Chinese)	1
Assistant Analyst (Chinese) Class II	1
Sampler	1

Health Division.

For duty in connection with the Sanitary Department.

Health Officers	2
Chinese Health Officer	1

Port Health Branch.

Port Health Officers & Inspectors of Emigrants	2
Chinese Port Health Officers.	3
Health Inspector	1
Public Vaccinators.....(One post vacant)	12

Fumigating and Disinfecting Bureau.

Secretary	1
Fumigator	1
Interpreter	1

Venereal Diseases Branch.

Venereal Diseases Officer	1
Chinese Venereal Diseases Officer	1
Venereal Diseases Technical Assistant	1
Dressers (Charge)	2
Venereal Diseases Nurse	1

Maternity and Child Welfare Branch.

Lady Medical Officer	1
Chinese Lady Medical Officer	1
Infant Welfare Nurses	3
Interpreter	1

School Hygiene Branch.

Health Officer for Schools	1
Chinese Medical Officers for Schools	2
School Nurses	5

Chinese Hospital and Dispensaries Branch.

Visiting Medical Officer	1
Lady Visiting Medical Officer	1
Chinese Resident Medical Officers	3
Chinese Lady Medical Officers	3
Stenographer	1
Dispensary Nurse	1
Midwives	4

Medical Division.

Clinical Branch.

Government Consultants	3
Senior Medical Officer	1
Medical Officers	8
Chinese Medical Officers	3
House Officers	4

Nursing Staff (General).

Principal Matron	1
Matrons	3
Home Sisters	2
Tutor Sister	1
Nursing Sisters	52
Nurses (Staff).....(4 Vacant posts)	11
Nurses (Probationers) (1 Vacant post)	46
Dressers (Charge)	5
Dressers (Staff)	3
Dressers (Probationers)	20
Linen Maid	1

Nursing Staff (Mental Hospital).

Head Attendant	1
Assistant Attendant	1
Mental Nurses	3
Wardmasters	2

Kennedy Town Hospital (Infectious Diseases).

Nurses (Staff)	2
Nurse (Probationer)	1
Dressers (Staff)	2
Dresser (Probationer)	1
Wardmaster	1

Tsan Yuk Maternity Hospital.

House Medical Officer	1
Secretary	1
Matron	1
Assistant Matron	1
Midwives	4
Pupil Midwives	12

Stewards.

Steward	1
Assistant Steward	1

Pharmacy Branch.

Apothecary	1
Assistant Apothecaries	2
Dispensers (Charge)	4
Dispensers (Staff)	3
Dispensers (Probationers)	5

Radiological Branch.

Radiologist	1
Radiographers	2
Masseuses	2
X-Ray Sister	1

New Territories Branch.

Medical Officer	1
Chinese Medical Officers	2
Nurse (Staff)	1
Midwives	8
Dresser (Staff) for Travelling Dispensary	1
Driver	1

Miscellaneous.

Office Attendants, Messengers, Wardboys, Amahs, Coolies etc., (27 Vacancies)	380

PRINCIPAL CHANGES IN PERSONNEL.

59. The following were the principal changes which took place during the year:—

Mr. J. H. Gelling appointed Secretary on return from leave on 22nd February and assumed duty as Secretary and Deputy Registrar of Births and Deaths. Mr. T. G. Stokes, who acted as Secretary and Deputy Registrar of Births and Deaths until Mr. Gelling's return from leave was transferred to Police Department.

Miss M. J. Wilson, Matron, Civil Hospital, acted as Principal Matron until 13th January.

Miss S. I. Summerskill, Nursing Sister, acted as Matron, Civil Hospital, until 13th January and as Principal Matron from 24th February to 17th October during the absence on leave of Miss M. J. Wilson.

Mrs. B. E. Elliott, Nursing Sister, acted as Matron, Civil Hospital, from 24th February to 17th October.

Miss S. F. Sutton, Home Sister, acted as Matron, Kowloon Hospital, during the absence on leave of Miss J. A. Davis from 5th May.

Miss A. M. Cullinan, Nursing Sister, acted as Home Sister, Kowloon Hospital, from 5th May.

Miss F. A. Cranfield, Nursing Sister, acted as Matron, Victoria Hospital from 24th September to 15th December.

Dr. G. W. Pope returned from leave on 1st November and resumed duty as Medical Officer of Health. Dr. J. M. Gray acted as Medical Officer of Health during Dr. Pope's absence from 27th January to 31st October.

Dr. A. V. Greaves returned from leave on 9th November and resumed duty as Bacteriologist. Dr. R. S. Begbie acted as Bacteriologist during Dr. Greaves' absence from 31st January to 8th November.

Mr. L. J. Morley, Assistant Apothecary, acted as Apothecary from 6th April during Mr. Cable's absence on leave.

Mr. A. Jackson returned from leave on 12th August and resumed duty as Assistant Analyst and acted as Analyst from 6th October during the absence on leave of Mr. V. C. Branson.

Appointments.

Name of Officer.	Designation.	Date of assumption of duty.
Miss K. N. Graveson	Assistant Apothecary	1. 1.34
Mr. J. I. Barnes	Secretary, Tsan Yuk Hospital	1. 1.34
Mr. J. G. Robertson	Asst. Radiographer	1. 2.34
Dr. (Miss) Pau Choi Chue	Chinese Lady Medical Officer	1. 2.34
Mr. J. H. Gelling	Secretary	22. 2.34
Dr. G. M. Hargreaves	Health Officer for Schools	4. 4.34
Dr. (Mrs.) G. R. Nash	Lady Medical Officer	1.12.34
Dr. (Mrs.) L. O. Hunter	Lady Visiting Medical Officer	1.12.34
Dr. G. I. Shaw	Medical Officer	13.12.34

Promotion.

Miss M. J. Wilson, Matron Civil Hospital, was appointed Principal Matron on 14th January.

Miss S. I. Summerskill, Nursing Sister, was appointed Matron, Civil Hospital, on 14th January.

Miss S. F. Sutton, Nursing Sister, was appointed Home Sister, Kowloon Hospital, on 1st March.

Miss I. Warbrick, Nursing Sister, was appointed X-Ray Sister on 10th May.

Mrs. B. E. Elliott, Nursing Sister, was appointed Matron, Victoria Hospital on 16th December.

RESIGNATIONS OR RETIREMENTS.

Name of Officer.	Designation.	Date of Resignation or retirement.
Miss C. S. Mackenzie	X-Ray Sister	9. 5.34
Dr. H. L. Clift	V.M.O.C.H. & D.	30. 9.34
Dr. (Mrs.) A. L. J. Dovey	Lady V.M.O.C.H. & D.	30.11.34
Miss G. Chettle	Matron, Victoria Hospital	15.12.34

OFFICERS ON VACATION LEAVE IN EUROPE.

Name of Officer.	Designation.	Date of Departure.	Date of Return.
Mr. J. H. Gelling	Secretary	—	22. 2.34
Prof. W. I. Gerrard	Govt. Consultant	16. 3.34	3.11.34
Prof. R. E. Tottenham	do.	18. 5.34	27.12.34
Dr. D. J. Valentine	Medical Officer	—	8. 2.34
Dr. I. Newton	do.	24. 2.34	—
Dr. G. V. A. Griffith	do.	21. 4.34	—
Dr. J. B. Mackie	do.	2.10.34	—
Dr. G. W. Pope	Health Officer	27. 1.34	1.11.34
Mr. J. Skinner	Radiographer	24. 2.34	29.11.34
Mr. R. E. Cable	Apothecary	6. 4.34	—
Mr. J. F. McGowan	Asst. Steward	10. 2.34	13.12.34
Miss M. J. Wilson	Principal Matron	24. 2.34	18.10.34
Miss J. A. Davis	Matron, Kowloon Hospital	5. 5.34	—
Mr. L. A. Collyer	Asst. Attendant, M. Hosp.	17.11.34	—
Dr. K. H. Uttley	Medical Officer	3. 2.34	29. 9.34
Dr. A. V. Greaves	Bacteriologist	31. 1.34	9.11.34
Mr. V. C. Branson	Govt. Analyst	6.11.34	—
Mr. A. Jackson	Asst. Analyst	—	13. 8.34

List of Ordinances affecting the Public Health enacted during the year.

60. The Ordinances affecting the public health which were enacted during the year were:—

No. 21—Births and Deaths Registration Ordinance.

No. 40—Cremation Ordinance.

61. Expenditure for 1934 and 1933 compared.

	1933.	*1934.*
Personal Emoluments	$1,008,860.62	$1,053,087.22
Other Charges.		
A.—Staff.		
Conveyance Allowances	$13,219.62	$13,947.46
B.—General.		
Artificial Limbs	$ 30.00	$ 47.00
Bedding and Clothing	12,963.08	15,787.70
Board for 5 House Officers (4 in 1933)	1,460.00	1,825.00
Board and Lodging for 6 Pupil Midwives	576.00	480.00
Books	415.33	502.24
Bonuses to Dispensary Licentiates and Clerks for vaccination of Children and registration of births	4,277.20	4,549.10
Cleansing Materials	5,537.45	6,859.30
Dental and Other Special Treatment	3,093.50	1,959.00
Expenses of Courses of Study and attendance at Medical Congresses	1,895.02	4,175.12
Fuel and Light	54,272.33	63,357.86
Grants to Protestant and Roman Catholic Chaplains for Religious Services	1,800.00	1,800.00
Incidental Expenses	2,565.27	3,304.33
Maintenance of lunatics at Canton	7,722.16	8,674.02
Medical Comforts	603.20	659.40
Medicines, Surgical Appliances and Instruments.....	72,549.17	77,691.01
Nursing Board Expenses	——	2,315.50

	1933.	*1934.*
Provisions for patients	$144,370.88	$116,907.34
Rent of Premises for Dispensaries, and Infant Welfare Centres	3,479.35	5,334.50
Transport	1,188.70	1,293.80
Treatment of Opium Addicts	560.50	1,968.00
Upkeep of Hospital Equipment...	12,428.42	13,251.05
Upkeep of X-Ray Apparatus.....	11,746.81	11,799.41
Upkeep of Travelling Dispensary.	2,366.31	929.65
Ventilation of Operating Theatre.	419.60	445.55
Washing	17,462.03	15,836.46

C.—Port Health Officer's Office.

Conveyance Allowances	$ 179.03	$ 218.31
Incidental Expenses, etc.	399.81	364.26
Uniforms	166.89	103.52
Expenses in connection with Fumigation and Disinfecting of shipping	—	32,527.28

D.—Bacteriological Institute.

Animals and Fodder	$ 6,389.90	$ 5,942.35
Anti-rabic work	373.19	353.58
Apparatus and Chemicals	1,338.37	1,291.96
Books and Journals	86.20	18.32
Conveyance Allowances	343.71	212.04
Fuel and Light	1,540.28	1,575.01
Incidental Expenses	720.40	789.33
Preparation of Vaccines, Serum, etc.	1,571.10	1,709.70
Uniforms	240.83	232.44

E.—Mortuaries, Victoria and Kowloon.

Conveyance Allowance for Messenger	$ 18.00	$ 18.00
Fuel and Light	81.33	86.09
Uniforms	94.50	111.90

F.—Malaria Bureau.

	1933.	*1934.*
Anti-Malarial Field Work.....	$ 1,136.84	$ 1,011.92
Conveyance Allowances	1,379.42	1,686.37
Equipment	1,392.27	827.67
Incidental Expenses	290.91	162.26
Uniforms	644.81	520.11

G.—Analytical Laboratory.

Apparatus and Chemicals.....	$ 3,991.84	$ 3,871.15
Books and Journals	161.69	169.24
Conveyance Allowance	180.00	180.00
Fuel and Light	807.11	797.22
Incidental Expenses	381.17	296.01
Uniforms	133.25	106.00
Total Personal Emoluments and Other Charges	$1,409,905.40	$1,483,969.06

Special Expenditure.

	1933.	*1934.*
Electric Centrifuge	$ 1,167.94	——
Microscope for Bacteriological Institute	689.56	——
Microscope for Training Asiatic Sanitary Inspectors	940.00	——
Microscope for Venereal Diseases Clinic	702.40	——
Repair and Calibration of Instruments, Analytical Laboratory.	676.29	——
Equipment of Kowloon Hospital.	——	16,774.29
Lymph Grinding Machine for Bacteriological Institute	——	1,923.30
Steel Cupboards	——	650.00
X-Ray Apparatus	——	1,100.00
Gestetner Duplicating Machine...	——	847.40
Total Special Expenditure....	$ 4,176.19	$ 21,294.99
Total Medical Department ...	$1,414,081.59	$1,505,264.05

REVENUE FOR 1933 AND 1934 COMPARED.

	1933.	*1934.*
Medical Treatment	94,220.96	92,388.58
Miscellaneous	1,180.00	405.00
Bacteriological Examination	9,346.70	6,998.50
Chemical Analyses	43,107.50	32,893.75
Bills of Health	11,070.00	9,960.00
Medical Examination of Emmigrants	89,531.70	145,208.10
Official Certificates	2,775.00	1,295.00
Births and Deaths Registration...	9,097.48	7,811.50
Consultants Fees	5,530.00	1,427.50
Fumigation and Disinfection Fees	——	2,512.25
Total	$265,859.34	$300,900.18

62. EXPENDITURE AND REVENUE MEDICAL DEPARTMENT FOR THE PAST TEN YEARS.

Year.	Personal Emoluments & Other Charges.	Special Expenditure.	Total Expenditure.	Total Revenue.
1925..	548,703.64	75,537.46	624,241.10	194,547.75
1926	701,717.93	34,451.05	736,168.98	255,070.19
1927.....	721,623.32	16,409.47	738,032.79	307,744.48
1928.....	808,412.61	23.37	808,435.98	306,347.62
1929.....	878,058.19	17,061.08	895,119.27	299,524.51
1930.....	1,172,791.22	51,305.06	1,224,096.28	267,887.66
1931.....	1,325,353.30	52,697.76	1,378,051.06	243,256.99
1932.....	1,316,575.34	6,689.20	1,323,264.54	260,164.87
1933.....	1,409,905.40	4,176.19	1,414,081.59	265,859.34
1934.....	1,483,969.06	21,294.99	1,505,264.05	300,900.18
Total	$10,367,110.01	$279,645.63	$10,646,755.64	$2,701,303.59

63. In drawing comparisons between the expenditure and revenue of different years it should not be forgotten that the Hong Kong dollar is based on silver and its value rises and falls with the price of that metal. Most of the European officers draw sterling salaries and the bulk of the drugs, dressings and instruments are obtained from England and paid for in sterling. With the exchange at a shilling, the number of dollars expended on sterling priced material is double what it would have been had the exchange been two shillings to the dollar.

Ratio of Expenditure on Medical and Sanitary Services to Total Revenue from all Sources.

64. The total revenue of the Colony from all sources was estimated at $31,731,625.00.

65. Because of the overlapping which occurs when a work serves both a utilitarian and a sanitary service it is impossible to assess exactly the amounts which have been spent for purely medical and sanitary purposes. Including all water works and drainage works as sanitary works, the following (which include the salaries of the P.W.D. staff concerned) shows the commitments as laid down in the Estimates for 1934.

Expenditure by Medical Department	$1,745,589.00
,, ,, Sanitary Department	1,179,394.00
,, ,, Public Works Department.....	2,510,730.00
,, ,, Police Department	6,240.00
,, ,, Subsidies to Charities.....	201,041.00
Total:—	$5,642,994.00

66. Ratio of expenditure on Medical and Sanitary Services to total revenue $= \frac{5,642,994.00}{33,442,695.00} = 16.87$ per cent.

67. If the expenditure on Water Works be not taken into account the ratio is 13.96 per cent. As explained in paragraph 65 above these figures are approximate only.

SECTION II.

Public Health.

PART I.—VITAL STATISTICS.

CIVIL POPULATION.

68. The estimated civil population for the whole of the territories under British jurisdiction at the middle of the year was 944,492, of which 923,584 or 97.8 per cent was Chinese and 20,908 or 2.21 per cent non-Chinese. The distribution was as follows:—

Urban area of Victoria:—		
Europeans and Americans	4,162	
Other non-Chinese races	5,704	
Chinese	373,199	
		383,065
Villages of Hong Kong:—		
Europeans and Americans	342	
Other non-Chinese races	115	
Chinese	47,059	
		47,516
Total for Hong Kong Island		430,581
Urban area of Kowloon including New Kowloon:—		
Europeans and Americans	4,702	
Other non-Chinese races	5,858	
Chinese	300,550	
Total for Kowloon & New Kowloon		311,110
Junks and Sampans:—		
Chinese		100,000
New Territories exclusive of New Kowloon:—		
Europeans and Americans	25	
Chinese	102,776	
		102,801
Total civil population		944,492

69. During the year 2,275,346 persons entered and 2,318,642 left the Colony by river steamer and by railroad, making a surplus of emigrants over immigrants by these routes of 43,296. Fuller details are as follows:—

	Arrived.	*Departed.*
River steamer	1,305,961	1,317,913
Railway	969,385	1,000,729
Ocean going steamers.	513,693	492,458
Total	2,789,039	2,811,100

70. The above does not represent the total movement between Hong Kong and the neighbouring provinces for there are many who arrive and depart by junk or sampan. It is estimated that on an average some 7,000 arrive and 7,000 depart daily.

BIRTHS AND DEATHS REGISTRATION.

71. The Registration of Births and Deaths Ordinance has since 1911 applied to the whole territory under British jurisdiction but until 1932 no action was taken to enforce it in the New Territories where registration of both births and deaths had been the exception rather than the rule.

72. As a result of the better enforcement of the law and still more as a result of the introduction of a new Births and Deaths Registration Ordinance, which did away with certain fees and penalties, the registration of births during 1934 has increased throughout the Colony, but more particularly in the New Territories where 3,564 births were registerd (3,380 in 1933).

73. Registration of births is however still far from complete and many births, especially of females, are never recorded.

74. In view of the increased numbers of births registered in the New Territories, it was decided to calculate the birth and death rates for 1934 on the population of the whole Colony and not to exclude the New Territories as heretofore.

75. Death registration in the Colony being a necessary preliminary to a permit to bury, it may be taken for granted that practically all deaths are registered. Bodies found dumped or abandoned in the streets and open spaces, are taken to the Public Mortuaries where they are examined by the Medical Officer who fills in the necessary certificates which go through the Coroners' hands to the Registrar. All certificates of deaths are scrutinized by the Medical Officer of Health.

BIRTHS.

76. The following table shows the number of births registered during the last five years:—

	1930.	*1931.*	*1932.*	*1933.*	*1934.**
Chinese	10,756	12,055	13,166	14,909	20,424
Non-Chinese	378	388	431	453	462
Total	11,134	12,443	13,597	15,362	20,886

*Includes those from New Territories.

DEATHS.

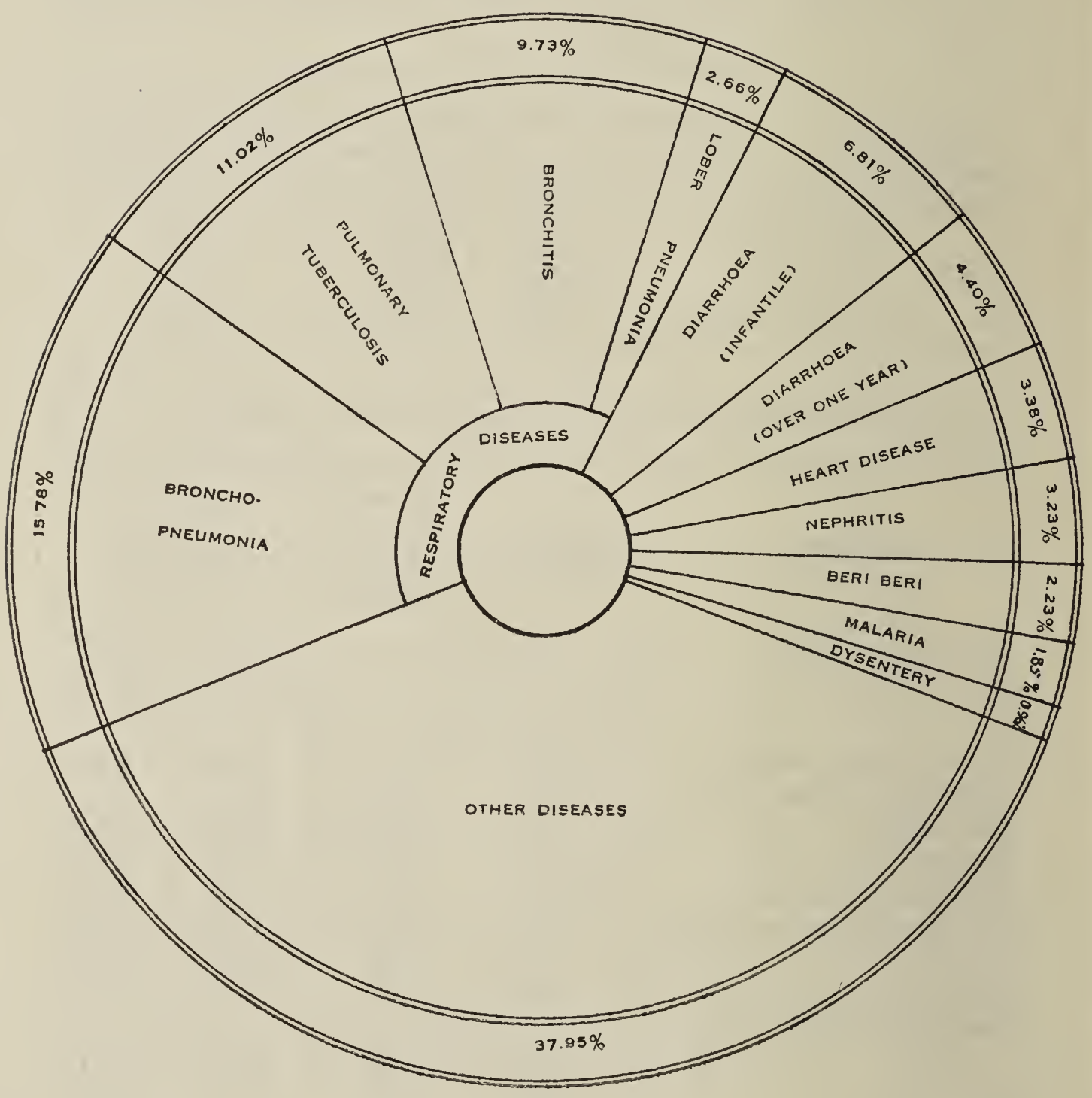
77. The deaths registered among the civilian poulation of the Colony (including New Kowloon and New Territories) was 19,766 giving a crude death rate of 20.93 as compared with 22.11 for the previous year (which included New Kowloon but did not include the New Territories).

Year	Deaths		Estimated population	Death rate per mille population
1933	Chinese	17,923	800,921	22.38
	Non-Chinese ...	233	20,424	11.39
1934	Chinese	19,516	923,584	21.13
	Non-Chinese ...	250	20,908	11.96

78. The principal diseases causing deaths were:—

Disease.	No. of deaths.	Percentage of total deaths.	Death rate per mille population.	
			1933	1934
Broncho-pneumonia	3,020	15.78	3.60	3.20
Pulmonary tuberculosis...	2,179	11.02	2.71	2.31
Pneumonia	527	2.66	0.93	0.56
Bronchitis	1,923	9.73	1.98	2.04
Diarrhoea (infantile)	1,346	6.81	1.68	1.42
Diarrhoea (over one year).	870	4.40	1.02	0.92
Dysentery	189	0.96	0.23	0.20
Nephritis	638	3.23	0.72	0.67
Heart disease — heart failure	669	3.38	0.73	0.71
Beri-beri	447	2.23	0.56	0.47
Malaria	365	1.85	0.50	0.39
Notifiable Diseases:—				
Smallpox.....	104	0.53	0.53	0.11
Enteric	65	0.33	0.08	0.07
Diphtheria	83	0.42	0.10	0.09
Cerebro-spinal meningitis	125	0.63	0.14	0.13
Cholera	—	—	—	—
Plague.....	—	—	—	—

79. Death Clock showing percentage of total deaths caused by different diseases :—



Infantile Mortality.

80. The numbers of deaths of infants under one year were :—

Chinese	7,094
Non-Chinese	23

81. If the figures for the Chinese births registered represented the total births, which they do not, the infantile mortality rate for this race would be 347.34 as compared with 454.89, which was the equally incorrect rate for the previous year. Allowing that only one third of the births are registered this would still mean a very high infantile mortality figure.

82. The mortality rate among the non-Chinese was 49.78 as compared with 88.30 in 1933.

The Dumping of the Dead.

83. The following table shows the number of unknown dead bodies found by the Police in the streets and elsewhere during the last five years :—

	1930	1931	1932	1933	1934
Victoria	418	366	382	357	289
Kowloon	669	738	884	881	679
Harbour	126	115	79	47	27
Elsewhere	103	76	82	62	61
	1,316	1,295	1,427	1,347	1,056

98 per cent of the bodies dumped were children the majority being infants. The number of males exceeded that of females.

VITAL STATISTICS OF EUROPEAN CIVILIAN POPULATION.

84. The Europeans and Americans resident in the Colony are estimated to number 9,216 of whom 7,121 were British. The majority of Europeans and Americans are treated by private practitioners when ill, and figures are not available for calculating incidence rates.

85. There were 149 deaths among the 9,216 giving a death rate of 16.2 per mille.

86. *Vital Statistics of European Officials.*

Number of Europeans (excluding temporary school mistresses)		985
Average number resident in the Colony		843
Number invalided during 1934:—		
(*a*) when on leave at home	2	
(*b*) in the Colony	6	
	—	8
Number died during 1934:—		
(*a*) in the Colony	3	
(*b*) when on leave at home	1	
	—	4

PART II.—HEALTH CONDITIONS.

GENERAL REMARKS.

87. In the absence of some general system of registration of sickness, the only sources of information available for gauging the state of the public health in this Colony are the returns relating to deaths, the notifications of infectious diseases and the records of Government and Chinese hospitals. Judging from the death returns the health of the Colony was better than that of the previous year. The crude death rate was 20.93 per mille as compared with 22.11 for 1933.

88. Respiratory diseases accounted for 39.97 per cent of the total deaths; the percentage for 1933 was 41.93. The principal diseases causing death were broncho-pneumonia, pulmonary tuberculosis, bronchitis, infantile diarrhoea and diarrhoea.

89. The overcrowded houses, the expectorating habits of the people, and poverty furnish sufficient explanation for the prevalence of respiratory troubles.

MALARIA.

90. Owing to efficient drainage methods this disease has disappeared from the greater part of the urban districts. It still persists, however, in the suburbs and in the rural areas. There are parts of the New Territories where the spleen rate is as high as 41.4%.

91. Malaria not being a notifiable disease the incidence figures are unknown. The cases admitted to the Government Hospitals numbered 457 as compared to 482 in the previous year. The percentage of deaths to cases admitted was 1.31. Among the Chinese Hospitals there were 839 admissions with a case mortality rate of 18.35 per cent.

92. The cases admitted to the Government Hospitals during the last nine years are as follows:—

1926	970
1927	670
1928	485
1929	653
1930	535
1931	585
1932	465
1933	475
1934	457

93. The total number of deaths attributed to this disease was 365, giving a death rate of 0.39 per mille over the whole population. The low death rate is, of course, due to the fact that the great bulk of the population residing in the drained urban area is not subject to risks of infection. If figures for local districts were available it would be found that in some areas the incidence and death rates were very considerable.

94. During the year the Malaria Bureau continued its investigations into the life history, habits and carrying powers of the local anophelines. The results obtained were both interesting and instructive. As in previous years there was no obstruction from the local Chinese; on the contrary they took an interest in the proceedings and showed their eagerness to be of assistance. The Chinese Inspectors have shown ability and zeal.

95. The Bureau co-operated fully with the Military Authorities and with the Public Works Department. A full account of the activities of the Bureau will be found in Appendix "B".

OTHER INFECTIOUS DISEASES.

96. During the year there were reported 153 cases of small-pox, 246 cases of cerebro-spinal fever, 162 cases of diphtheria and 212 cases of enteric. There were no cholera cases.

Pulmonary Tuberculosis.

97. This disease continues to rank second to broncho-pneumonia as the principal cause of death. It is probable that some of the cases of the latter were of tuberculous origin.

98. The total number of deaths was 2,179; that for 1933 was 2,225. The death rate per mille was 2.31 as compared with 2.71 for the previous year.

99. There is need for more hospital or infirmary accommodation for tuberculosis patients, especially for those of the poorer classes.

Smallpox.

100. Every year in the cold season this disease manifests itself in outbreaks which are sometimes sporadic, sometimes epidemic. Whatever the prevalence there is always a tendency for the morbidity rate to decline or disappear with the advent of summer. In the year under review there were 153 cases and 104 deaths. 53 cases only were treated in hospital the remainder did not come under the notice of the authorities until after death.

101. The vaccination campaign was continued and during the year 298,836 persons were vaccinated. Valuable assistance was afforded by the St. John Ambulance Brigade and by the Chinese Public Dispensaries. Both bodies engaged in active propaganda and through their efforts many were persuaded who otherwise would have kept aloof. The various sections of the Brigade again carried out street vaccination with excellent results.

102. The Chinese have a preference for vaccination in the spring as being the auspicious season, and for a month or two after Chinese New Year the Chinese Public Dispensaries are crowded with children waiting to be done.

103. The majority of Chinese still hold the opinion that the herbalist treatment of smallpox gives better results than the methods adopted by practitioners qualified in Western medicine. An analysis of the statistics of (*a*) the Tung Wah Infectious Diseases Hospital where only herbalist treatment is carried out, and (*b*) the Government Infectious Diseases Hospital where western treatment only is provided shows that this view is not correct. Calculating on the figures for the last 25 years the case death rate at the Tung Wah was 47.9 per cent while that at the Government institution was 15.25 per cent.

Plague.

104. For the last five years no cases of plague have been reported in Hong Kong. The disappearance of this disease not only from this Colony but from the greater part of China and its decline throughout the world are due to factors which are not understood.

105. Systematic rat-catching and periodical cleansing of houses were carried out throughout the year. The total number of rats collected was 175,687 of which 21,976 were taken alive, as compared with 174,272 and 17,038 in 1933. The number collected each year shows that there is no diminution in the rat population. All the rats collected were sent to the Public Mortuary for examination. None was found infected.

Cerebro-Spinal Fever.

106. The following table shows the monthly incidence of this disease for the last 5 years:—

Month.	1930	1931	1932	1933	1934
January, ...	1	2	6	15	15
February, ...	2	3	2	39	27
March, ...	3	0	9	30	69
April, ...	7	1	111	33	53
May, ...	3	8	26	17	25
June, ...	4	1	16	14	15
July, ...	1	1	9	7	11
August, ...	0	2	7	5	3
September, ...	1	1	5	8	13
October, ...	1	3	3	0	5
November, ...	3	1	7	9	2
December, ...	3	1	8	14	8
Total	29	24	209	191	246

107. The disease is most prevalent in Spring, during the warm moist weather. It dies down when the real summer heat sets in. This may in fact be due to people sleeping more out of doors at night and so lessening overcrowding. Of the 246 cases reported, 125 or 58.17% proved fatal. Ever since the severe outbreak of this diseaes, which occurred in 1917, a supply of Serum, made at the Bacteriological Institute from the local strains of *meningococcus*, is kept in stock. This serum gives very good results when used early in the disease.

Diphtheria.

108. Cases of this disease occur throughout the year, but the majority of those notified occur during the cold weather of December, January and February.

109. 162 cases were reported of which 82 proved fatal, as compared with 122 with 81 deaths in 1933.

Enteric.

110. Cases of this disease are notified throughout the year, but there is usually some increase in the number reported during the summer months. The cases are usually sporadic and the source of infection is seldom discovered. 212 cases were notified with 65 deaths as compared with 207 in 1933 with 64 deaths.

Leprosy.

111. In October His Excellency the Governor appointed a Committee, under the Chairmanship of the Secretary for Chinese Affairs, to enquire into the incidence of Leprosy in the Colony and to suggest methods of dealing with lepers. The report of this Committee is now under consideration. The number of lepers in the Colony is unknown. The number deported by the Police was 104 (83 in 1933).

Rabies.

112. Fourteen cases of this disease were reported during the year. Four cases occurred in humans the remainder in dogs.

113. With the exception of one human case in the City of Victoria the disease was confined to New Kowloon and the New Territories.

114. The last case was reported in August.

115. None of the human cases had been treated with anti-rabic vaccine before the appearance of symptoms. All were fatal. No case which received anti-rabic treatment contracted the disease, though several had been bitten by dogs proved to be rabid.

SECTION III.

Hygiene and Sanitation.

GENERAL REMARKS—ADMINISTRATION.

116. The Sanitary Department which is distinct from the Medical Department and over which the Director of Medical and Sanitary Services has no authority deals with the greater part of the sanitation of the Colony. The head of the department is an officer of the Cadet Service whose title is Head of the Sanitary Department.

117. The staff under his administrative supervision includes:—

(i) Two European and one Chinese Health Officers seconded from the Medical Department.

(ii) Two Veterinary Surgeons.

(iii) Fifty-six European Sanitary Inspectors.

There are five Asiatic Sanitary Inspectors, a number of interpreters and a large staff of subordinates.

118. Included among the responsibilities of this department are:—

(*a*) the prevention or mitigation of epidemic, endemic, contagious or infectious disease in humans and animals.

(*b*) the prevention of disease caused by mosquitoes.

(*c*) measures for ensuring the purity and wholesomeness of foods during their preparation, storage and sale.

(*d*) the control of abattoirs, markets, dairies and bakeries.

(*e*) the control of eating houses.

(*f*) town cleansing, scavenging and collection of nightsoil.

(*g*) the disposal of the dead.

119. For the purpose of sanitary administration by the Sanitary Department, the Island and the Peninsula have been divided into local sanitary areas, each with a sanitary office, and these in turn have been sub-divided into Health Districts each in charge of a Sanitary Inspector.

120. The City of Victoria is divided into four Sanitary areas and eighteen health districts. The villages on the South side of the Island are in charge of one Inspector. Kowloon Peninsula has three health areas and ten health districts. It is estimated that on an average each Inspector has to deal with a population of 25,000, a very high figure for a tropical city, and especially for one so overcrowded as Victoria.

121. The Sanitary Department has no jurisdiction in any part of the New Territories with the exception of the urban area next to Kowloon and known as New Kowloon.

122. The following general review of work done and progress made in matters of sanitation is, so far as the Sanitary Department is concerned, based on facts supplied by the Medical Officer of Health. The Annual Report of the Sanitary Department is issued independently by the Head of the Sanitary Department.

PREVENTIVE MEASURES AGAINST MOSQUITOES AND INSECT BORNE DISEASES.

123. The only law on the subject is the following by-law made under the Public Health and Buildings Ordinance which is administered by the Sanitary Department:—

"When the larvae of mosquitoes are found on any premises the Board may on the advice of the Medical Officer of Health or any Assistant Medical Officer of Health give notice to the owner or occupier of such premises to remove all accumulations of water from such premises or to take steps to prevent the recurrence of the breeding places of mosquitoes in any such accumulations of water and such owner or occupier shall comply with such notice forthwith."

This by-law does not apply to the New Territories.

124. There are no special Sanitary Inspectors engaged in anti-mosquito work and the anti-mosquito brigade consists of two overseers and a squad of oiling coolies.

125. The routine work of inspection of premises for the presence of mosquito breeding was carried out by the district inspectors. Oiling of pools and destruction of mosquito breeding places was carried out by the anti-mosquito gangs.

126. The usual cutting of undergrowth in May and October was done in co-operation with the Botanical and Forestry Department as regards Crown Lands, and with the Military Authorities, on Military lands.

127. The Malaria Bureau of the Medical Department continued to function throughout the year. The work done included:—

(*a*) General survey of the Colony and New Territories for the purpose of ascertaining what species of mosquitoes exist and the life history of each.

(*b*) Research regarding insect borne diseases to determine the insect hosts and the conditions influencing the spread of infection.

(*c*) Special investigation in malarious districts with a view to the eradication of disease.

(*d*) Local mosquito surveys for the abatement of mosquito nuisances.

(*e*) Co-operation with Government Departments, the Military, Naval and Air Forces, Public Companies and private individuals with regard to the investigation and eradication of malaria.

(*f*) The teaching of mosquitology.

128. A full account of the activities of the Bureau will be found in Appendix B.

GENERAL MEASURES OF SANITATION.

DOMESTIC CLEANLINESS.

129. Every domestic building or part of a building occupied by the members of more than one family must, unless especially exempted by the Sanitary Board, be cleansed and limewashed throughout by the owner, to the satisfaction of the Board, not less than once in every year, and notice in writing that such cleansing and limewashing has been completed shall be sent by the owner to the Secretary within three days after the date of completion.

130. It is the duty of the occupier of any domestic building to cause such building to be kept in a cleanly and wholesome condition and to see that the drains, traps, gratings, fall pipes, and sanitary fittings and appliances, are free from obstruction and in an efficient state of repair.

131. In Hong Kong there are 13,829 Chinese houses with 46,903 floors; in Kowloon there are 10,607 houses and 31,908 floors. During the year 152,594 floors in Hong Kong and 83,179 floors in Kowloon were cleansed. During the cleansing process all the furniture is moved and the floors and woodwork washed with kerosene oil emulsion.

132. Considering that each inspector has to supervise a district with approximately 25,000 inhabitants, most of whom are ignorant of the rudiments of sanitation, the thoroughness of the cleansing operations is remarkable.

SCAVENGING.

133. Scavenging is carried out departmentally. There are twenty-one refuse lorries in use, fourteen being for Hong Kong and seven for Kowloon. 430 tons of refuse was collected daily and removed to the various refuse depots. The bulk of the refuse was ultimately disposed of by dumping in the sea at a distance from the city and in such a situation where the currents run in a direction away from the island. Some of the refuse from Kowloon was used to reclaim low-lying land near the sea-shore.

CONSERVANCY AND SEWERAGE DISPOSAL.

134. The collection and disposal of night-soil in the Colony is carried out partly by the bucket system and partly by water carriage. With regard to the bucket system arrangements were made with a contractor for the removal and disposal of excrement under conditions laid down by the Sanitary Board. During the year this was altered when Government took over the collection of night-soil from the contractor.

135. The excrement is removed by night from the latrines to a special fleet of junks which convey it up river to China where it is utilised as manure for the mulberry trees on which the silk worms feed.

136. Owing to the limitations of the water supply on the Island and the need for economy in the matter of consumption, it is necessary to restrict the number of water closets served by the public mains.

137. Where a sufficiency of water can be obtained from other sources, such as wells or streams, and the conditions otherwise are suitable, water closets are allowed. With regard to effluents, some enter the public sewers direct, some pass to biological tank systems to be treated before final discharge.

DRAINAGE.

138. Drainage both surface and subsoil is controlled by the Public Works Department. $413,200 was entered in the 1934 Estimates for a programme which included drainage, training of nullahs and sewerage. $100,000 which includes costs of resumption, was provided for anti-malaria works.

WATER SUPPLIES.

139. The water supplies of Hong Kong and Kowloon are in charge of the Water Works Branch of the Public Works Department.

140. All the water is surface water and most of it is collected from catchment areas which are free from ordinary risks of pollution. The water, after storage for a longer or shorter period in impounding reservoirs, is filtered in some cases by slow sand filters, in others by the rapid system, and finally it is chlorinated.

141. Routine examinations are carried out by the Government Bacteriologist and Government Analyst and the results furnished to the Water Authority. The results show that the water as supplied to the consumer is of excellent quality.

COMMON LODGING HOUSES.

142. Boarding Houses which include every place where any person is harboured or lodged for any kind whatsoever of hire or reward and where any domestic service whatsoever is rendered by the owner, lessee, principal tenant, occupier, or master to the person so harboured or lodged, but which do not include any boarding house for non-Chinese seamen within the meaning of the Merchant Shipping Ordinance, are licensed and controlled by the Secretary for Chinese Affairs under the Boarding House Ordinance.

143. They include hotels, common lodging houses, places where employers lodge their employees and the premises of societies within the meaning of the Societies Ordinance, where persons pass the night.

144. Under the Public Health and Buildings Ordinance "Common Lodging House" includes any house or part thereof or other permanent structure where male persons of the labouring, artizan or mechanical classes, not being members of the same family, to the number of ten persons or upwards are housed, but does not include a house or other permanent structure where shopmen or domestic servants are housed by their employers.

145. Under the Public Health and Buildings Ordinance the Sanitary Board is given power to make by-laws for the licensing, regulation and sanitary maintenance of Common Lodging Houses.

146. Sixteen by-laws have been made under this Ordinance, one of which passes the power of registering the houses and licensing the keepers to the Secretary of Chinese Affairs.

147. In practice the Sanitary Department report on the condition of the house and if declared sanitary the Secretary for Chinese Affairs, if he be satisfied, registers it and licenses the keeper.

148. As mentioned above Boarding Houses include Common Lodging Houses. Some 550 Chinese Boarding House licences have been issued by the Secretary for Chinese Affairs. They vary in class from 3rd class lodging houses to 1st class hotels.

SCHOOL HYGIENE.

149. Dr. G. M. Hargreaves, D.O.M.S., arrived in the Colony on April 4th, and has been in charge of the branch since that date. On June 1st the nursing staff was increased to five by two new appointments.

150. Dr. Au King and Dr. Wong Hok Nin, Chinese Medical Officers, were on duty throughout the year.

151. During the Summer holidays the members of the Staff acted as reliefs in other branches of the Medical Department.

152. Of the schools controlled by the Education Department twenty were "provided" or Government schools (note: the Technical Institute is not classed herein as a school), 333 were aided or subsidised by grants from public funds, and 718 were unaided. The number of pupils in attendance at Government schools was 5,476; similar figures for the aided and unaided schools were 28,677 and 39,195 respectively, in all a total of 73,348.

153. The purposes of a school medical service are not only to detect the sick and ailing in their early stages, but to seek for anomalies of growth and development, so that measures may be taken to prevent not only the progress of ill-health but also its causes. Its basis is the routine medical inspection of school children, and since they are collected together for definite periods they form a section of the community whose health conditions are comparatively easy to ascertain.

154. In the period under review 5,216 medical examinations (3,894 routine inspections and 1,322 re-inspections) were carried out at 14 Government schools and 8 private vernacular schools.

155. Abnormalities discovered at the time of a routine inspection are classified into two groups:—(*a*) defects in need of treatment, and (*b*) conditions that are placed on an observation list for further consideration. The incidence of defects in need of treatment (excluding dental disease) varies according to the type of school, and is recorded as being between 19% and 30%.

156. There are three minor ailment clinics for the treatment of Government school children, and each is open on two forenoons in the week (4,005 attendances). There are also two "special" clinics: one deals with Ear, Nose and Throat cases, the other with visual defects (745 attendances). In addition to the number of attendances recorded under "special" clinics, 219 children were examined and treated by private practitioners on account of bad eyesight. The method of securing treatment of children attending private schools was by means of advice to parents.

157. Of the total number of persons referred for re-inspection, 1,322 were seen after a reasonable interval. 59.1% were cured or definitely improved and 40.9% were in the same state as before.

158. Twenty-two Grant-in-aid and boarding schools were visited by the Medical Officers who inspect premises, furniture and cooking arrangements, but neither see nor examine the pupils. Information regarding health conditions can only be obtained by the study of examination records and returns of illness, the preparation of which must be left in the hands of private medical practitioners.

159. Four hundred and nine visits of inspection were paid to new schools prior to their registration. Leniency has tempered the recommendations for registration, but the standard of requirements is being raised. It is to be hoped that routine visits of inspection after registration will soon be instituted.

160. The appointment of a Lady Medical Officer in 1935 will permit further work among the girl's schools.

161. As far as possible activities are being extended among the vernacular schools, particularly those situated in Wanchai where a new Health Centre is being erected.

LABOUR CONDITIONS.

162. There are no estates, plantations or mines and comparatively few large factories. The majority of the urban labouring classes are engaged in matters connected with commerce, shipping or public works and the bulk of the remainder find employment in shops or workshops or independent businesses. There is no need for recruitment of labour, the supply being sufficient to satisfy all demands.

163. Labourers find their own accommodations in the many tenements and lodging houses which exist in Hong Kong and Kowloon.

164. The Factories and Workshops Ordinance contains sections bearing on the health of factory workers. The Public Health and Buildings Ordinance also contains sections bearing on the health of factory workers.

165. Ordinarily there are no special arrangements for the medical care of labourers other than the Government Hospitals, the Chinese Hospitals, the Chinese Dispensaries and the Mission Hospitals. The total number of third class beds in these institutions available for general diseases are about 1,000 or 1 to 750 approximately.

166. Special arrangements were made for the care of the labourers engaged in the Shing Mun Water Works Scheme which was in full swing during the year. Anti-malaria precautions were taken and hospital accommodation and medical supervision provided.

HOUSING AND TOWN PLANNING.

167. There is no Town Planning Ordinance and Housing comes under that portion of the Public Health and Buildings Ordinance which is administered by the Public Works Department. There is little or no zoning in the older parts of Victoria and black-smiths shops or even foundries are to be found in the midst of shop houses and domestic houses. The new reclamation in Victoria known as the Praya East has been laid out on modern lines with wide streets and backlanes. The greater part of Kowloon and New Kowloon has been planned on up to date principles. The zones recommended by the Town Planning Committee of 1923 are being adopted.

168. The following list shows some of the work done during the year by, or under the supervision of the Sanitary Department (items 1-4) and the building branch of the Public Works Department (items 4-10).

Nature of Work.	*No. of Cases*	
	1933.	*1934.*
1. Obstructions removed from open spaces.	469	458
2. Obstructions to light and ventilation removed	824	1,604
3. Rat holes stopped	842	1,119
4. Water closets installed in private buildings	3,365	1,415
5. Houses demolished (domestic)	130	72
6. Houses demolished (non-domestic)	2	33
7. Houses erected (domestic)	1,025	420
8. Houses erected (non-domestic)	19	99
9. Houses re-constructed (domestic).....	—	196
10. Houses re-constructed (non-domestic)...	—	—

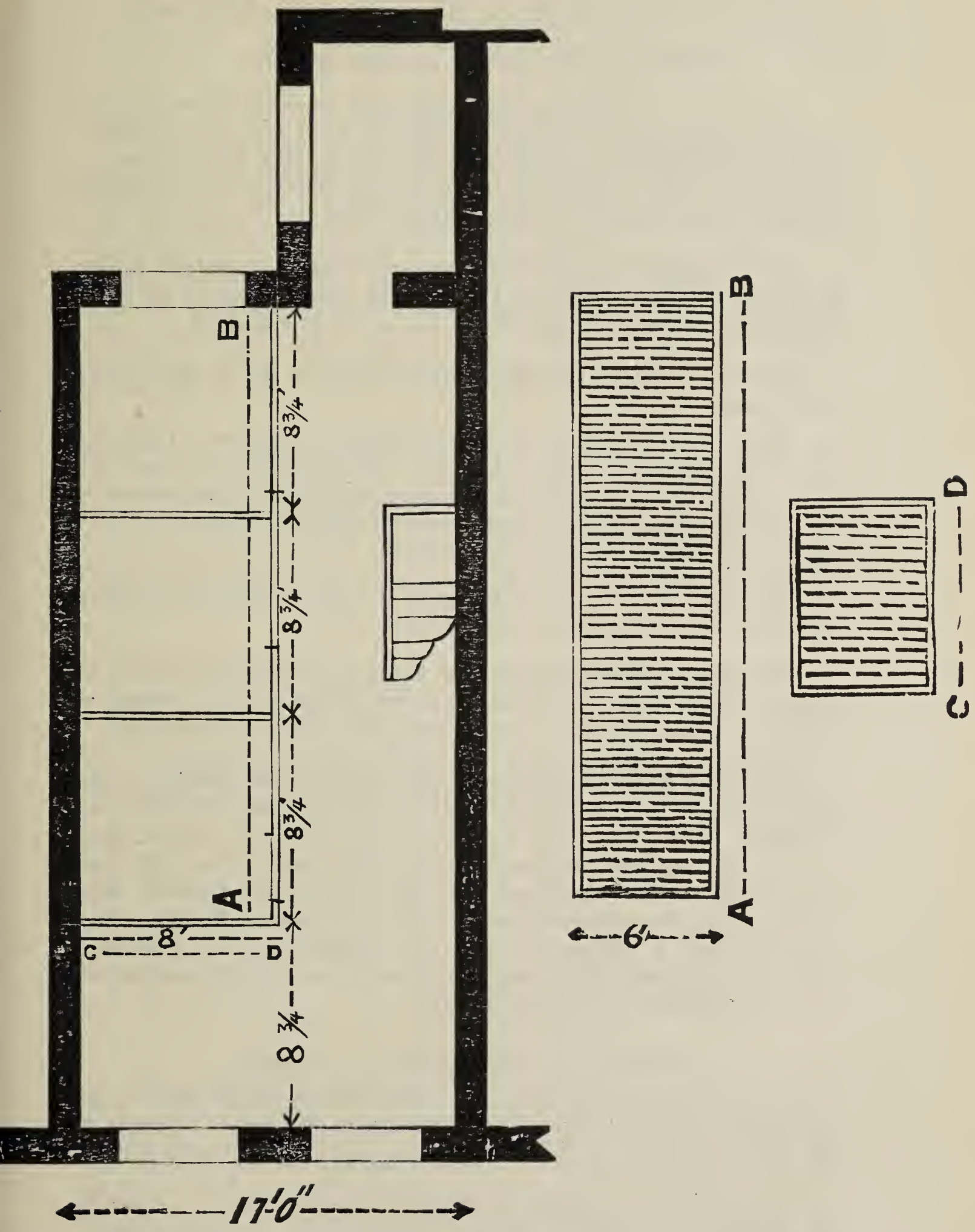
169. The City of Victoria for the area it occupies is over housed and grossly over-populated. In certain districts a great deal of improvement has been brought about but in some 200 acres where there are approximately 1,000 persons to the acre sanitary conditions are bad.

170. The position as regards housing in Victoria has been explained in the introduction to this report. The situation is at the same time a sanitary problem, a social problem and an economic problem. Victoria is the centre of attraction for the stream of immigrants from China, most of whom are poor people who live from hand to mouth. Accommodation is limited but the people must find shelter somewhere. A cubicle rents for ten dollars per month, a bed in the passage costs three to four dollars, food costs at least six dollars and the average earnings of a coolie are about eighteen dollars.

171. There is no space to build further houses and demolition means an increase of concentration in the houses that remain.

172. One hopeful sign is that the people are being more and more attracted by Kowloon, Praya East and North Point where concentration is much less marked and where there is room for extension.

173. The following plan shows the dimensions of the model type of house designed by the Public Works Department. Provided there be sufficient space in front and behind in the way of street and back lane and provided the occupants keep the building clean and free from obstruction to light and ventilation there is no reason why they should not live a healthy life.



PLAN OF A FLOOR IN NEW HOUSE WITH CUBICLES

SCALE 1" = 8 FT.

FOOD IN RELATION TO HEALTH AND DISEASES.

INSPECTION AND CONTROL OF FOOD SUPPLIES.

174. The laws dealing with this subject are the Public Health and Buildings Ordinance and the Sale of Food and Drugs Ordinance both of which are administered by the Sanitary Department. Stall-holders and hawkers, who come under the Licensing Ordinance, 1887, are licensed by the Police.

175. Samples of fresh milk were submitted for analysis under Section 12 of the Food and Drugs Ordinance, of which 82 were found to pass the standard and 6 to be below standard.

176. In addition the following samples of Food and Drugs were taken:—

Bean curd 4, Bran 1, Bread 7, Butter 7, Cheese 3, Chewing gum 1, Flour 18, Ghee 17, Lard 2, Oats 1, Peanut Oil 3, Furico 1, Skimmed milk 8, Sugar 1, Raspberries 3, Strawberries 2, Tinned Sauer-kraut 1, Tinned cherries 1, Loganberry 1 and Wheat 3.

Prosecutions were undertaken in 9 cases where the samples failed to satisfy the legal requirements.

177. Some thirty samples of ice and a similar number of samples of ice cream were taken during the year. The standard of bacteriological purity in some cases left much to be desired.

178. The following foodstuffs were seized and destroyed under Section 82 of the Public Health and Buildings Ordinance:—

Fruit 4200 tins and bottles, Fish 271 tins and bottles, Vegetables 439 tins and 1 cattie (fresh), Meat 49 tins, Flour 195 packages, Jam 241 tins, Jelly 8 slabs, Milk 7866 tins, Beer 3 bottles, Biscuits 22 tins, Butter 5 tins, Bran 1 carton, Cocoa 1 tin, Chocolate ½ lb., Cheese 3 tins, Oats 1426 lbs., and 1 carton and 590 miscellaneous packages of various goods.

MARKETS, SLAUGHTER HOUSES AND DAIRIES.

179. *Markets.*—The markets come under the Sanitary Department. There is urgent need for larger and better markets in the city of Victoria. These are being provided as funds permit.

180. *Slaughter Houses.*—Slaughter houses and animal depots are controlled by the Veterinary Branch of the Sanitary Department. There is a Government depot at Kennedy Town (Hong Kong) for the reception of all cattle, sheep, swine and goats brought into the Colony for slaughter. The Government abattoirs are situated at Kennedy Town (Hong Kong) and at Ma Tau Kok (Kowloon). There are Government controlled slaughter houses at Aberdeen and Sai Wan Ho.

181. *Dairies.*—There are a number of dairies in the Colony all of which are licensed and inspected by the Sanitary Board.

DEFICIENCY DISEASES.

182. The only information available regarding deficiency diseases is furnished by the death returns and returns of diseases furnished by the Government Hospitals and Chinese Hospitals. The Hospitals deal with only a small proportion of the sick and the whole truth regarding the incidence of disease among the masses cannot be deduced from their figures. The death returns also are misleading in that the majority of cases were not treated by competent physicians prior to death and the Medical Officer examining a body in the mortuary, had no history to assist him in coming to a conclusion as to the cause of death.

183. *Beri-Beri.*—Polished rice is the staple food of the masses yet beri-beri is not epidemic and the deaths from this disease formed only 2.23 per cent. of the total deaths. The total number of deaths recorded was 447 and the death rate per mille population 0.47. The total number treated in the Government Hospitals for this disease was 65, those treated in the Chinese Hospitals numbered 551.

MEASURES TAKEN TO SPREAD THE KNOWLEDGE OF HYGIENE AND SANITATION.

184. The measures taken to spread the knowledge of Hygiene and Sanitation among the populace of Hong Kong are as follows: Every year during "Health Week" the Y.M.C.A. arranges for a series of lectures to be given. The St. John Ambulance Brigade from time to time spread the gospel concerning some particular subject. A number of the schools teach elementary hygiene. The Chinese Public Dispensaries arrange periodically for popular lectures to be given by their medical officers. The "Schools" Branch of the Medical Department have a small demonstration centre and the school medical officers and nurses give lectures and demonstrations. At the Infant Welfare Centres endeavours are made to instruct the mothers who attend.

185. Health instruction to serve any useful purpose must arouse and retain the interest of those for whom it is intended. With regard to the masses little of practical value can be accomplished without the active assistance of the mothers of the families, and the quickest and surest way of obtaining the confidence of the mothers is through health centres where free medical advice and treatment form the primary attraction and where the mothers make the acquaintance of tactful and sympathetic skilled nurses who also act as home visitors. The second best means of influencing the mother is through the school clinic where her children are medically examined by the doctor and school nurse and where opportunity is taken to add propaganda to advice.

186. At present the Public Health Centres are the Chinese Public Dispensaries and the Government Infant Welfare Centres at Wanchai, Kowloon and in the New Territories (Lady Ho Tung Welfare Centre). There are no public health nurses or health visitors but a certain amount of visiting is done by the School and Infant Welfare Nurses.

187. With regard to School Medical Work, the staff has been strengthened by the appointment of a whole time Medical Officer, Dr. G. M. Hargreaves, D.P.H., D.O.M.S., who has had previous experience as School Medical Officer in Uganda. He is assisted by two Chinese Medical Officers and five nurses. Provision has however been made for the appointment in 1935 of a part time Lady Medical Officer. This staff is, however, still insufficient to cope with the work of dealing with over 70,000 School children.

TRAINING OF SANITARY PERSONNEL.

188. The Medical Officers of Health hold classes and give lectures. Courses in chemistry, physics and sanitary engineering were held at the Technical Institute of the Education Department. At the Bacteriological Institute elementary instruction in bacteriology and mosquitology is given to sanitary inspectors.

189. Hong Kong is an examining centre for the Royal Sanitary Institute and every year examinations are held for the Sanitary Inspectors Centificate and the Sanitary Science Certificate. Candidates come from Shanghai to take these examinations. The results of the last test were very satisfactory.

SECTION IV.

Port Health Work and Administration.

GENERAL.

190. Reckoned in terms of shipping tonnage, Hong Kong is one of the five greatest ports in the world. It is the principal commercial entrepot of Southern China and is the terminus of steamship lines running between China, Japan and North America.

191. In 1934, 4,824 British ocean-going steamers and 6,253 foreign ocean-going steamers entered and cleared the harbour. In addition there were 9,748 river steamers, 6,547 launches, and 16,991 foreign trade junks. The total tonnage of vessels entering and clearing was 40,054,033.

192. The Medical Staff engaged in Port Health duties consists of two European Health Officers and two Chinese Medical Officers.

193. The work of the department includes:—

(*a*) Routine inspection of ships.
(*b*) Quarantine duty.
(*c*) Medical inspection of emigrants.
(*d*) Disinfection and fumigation of ships.
(*e*) Vaccination.

194. The laws dealing with the subject of Quarantine and Port Health are contained in Table L of the Hong Kong Port Regulations, the Asiatic Emigration Ordinance and the Vaccination Ordinance.

195. During the year 5,547 inward bound ocean-going vessels were boarded by the Health Officers. Of these 2,420 were on the British register and 3,127 on the foreign register.

196. River steamers from Canton, Macao and West River Ports, also junks and small craft are normally visited only when cases of sickness or death are reported. However all River steamers are regularly inspected by a Health Inspector, whose duties are mainly concerned with the cleanliness and sanitation of such vessels.

197. During the year 125 special visits were made to ships for the purpose of examining persons suffering from infectious but non-quarantinable diseases.

198. 46 permits for the landing of corpses for burial were granted and 18 bodies were sent to the mortuary for post-mortem examination. 2 cases of leprosy were detected amongst Chinese passengers. 28 Chinese lunatics arrived in the Colony during the year. Bills of Health numbering 1,680 were issued.

QUARANTINE.

199. Hong Kong has no quarantine station for ships' passengers or crews. When segregation is necessary it is carried out on board ship at the quarantine anchorage. A limited number (26) of infectious cases can be accommodated at the Government Infectious Diseases Hospital at Kennedy Town but there is no room for contacts.

200. All vessels arriving from "Infected" ports and those having infectious or suspicious cases on board fly the "Q" flag and go to a quarantine anchorage for examination.

201. The monthly return of quarantine ships is given in Table V.

202. During the year 10 vessels were detained in quarantine. For details, see Table IV. Fumigation and disinfection of these vessels and of the clothing and personal effects of those on board were carried out.

203. The total number of persons medically inspected during 1934 was 290,645 or an average of 796 examinations per day.

EMIGRATION.

204. The Asiatic Emigration Ordinance No. 30 of 1915 requires that emigrant ships shall have:—

(1) Proper and sufficient living accommodation.

(2) Proper and sufficient sanitary requirements.

(3) Proper and sufficient hospital accommodation.

(4) A sufficient supply of drugs, medical equipment and disinfectants.

It also makes provision for:—

(1) A proper diet scale.

(2) The prevention of the export of the unfit.

(3) The prevention of the export of infectious diseases.

205. The Vaccination Ordinance 1923 requires that all emigrants from the Colony shall be protected against Smallpox by vaccination.

206. The duty of carrying out the sanitary and medical inspection and for vaccinating those who are insufficiently protected falls on the Port Health Authorities.

207. Emigrants are classified as :—

(1) "Free emigrants" or those who pay their own passages.

(2) Assisted emigrants or those whose passages are paid by their prospective employers.

(3) Women and children.

208. The total number of emigrants examined during the year was 138,240 of whom 136,887 were free and 1,353 assisted. The number of rejections was 265.

209. Improved economic conditions in Malaya, due to the enhanced prices of tin and rubber, were reflected in the figures for emigration. 86,192 persons emigrated to the Straits Settlements during the year in comparison with 20,324 in 1933 and 19,216 in 1932. The total number of emigrants leaving Hong Kong in 1934 was 138,240 as against 64,181 in 1933 and 62,563 in 1932.

DISINFECTION AND FUMIGATION.

210. Formerly vessels were disinfected and fumigated by a private company—The Fumigating and Disinfecting Bureau, Ltd. As this Company went into voluntary liquidation in October, Government took over the Staff and equipment as such services were essential for the Port.

211. The equipment, consisting of the disinfecting hulk "Aldecoa" and of a B type Clayton Machine mounted on a dumb barge, proved to be largely unreliable or unserviceable, so that considerable expenditure had to be incurred to bring it up to a reasonably satisfactory standard. The necessary repairs, renewals and alterations have been carried out and the plant is now in good working order.

212. During the year, 55 ships were fumigated for the destruction of rats and 13 ships were fumigated on account of infectious diseases.

VACCINATION.

213. The Government Vaccinators are members of the Port Health Staff and work under the general supervision of the Port Health Officer. They work at the Vaccination Centre and on board ships, but are detailed for work with the Sanitary Department whenever required.

214. The number of vaccinations performed by these officers was 49,293 of which 12,315 were emigrants.

TABLE I.

SHOWING EMIGRATION PASSES AND REJECTIONS FOR 1934.

Port of Destination.	*Passengers.*	*Crews.*	*Rejected.*
Straits Settlements	86,192	4,724	104
Canada	4,227	13,793	20
United States of America...	3,618	9,138	25
Honolulu	696	...	4
Dutch East Indies	25,244	10,370	46
British North Borneo	4,104	1,953	19
Shanghai and Japan.....	6,156	...	1
Australia	678	2,560	5
South Sea Islands.....	602	134	...
Panama	247	1,022	3
Havana	12	1,221	...
India	5,241	12,183	36
Mauritius	596	192	...
Reunion	394	...	...
Madagascar	71	279	2
Jeddah	137	69	...
Chile	21	97	...
Hoihow	4	...	...
Total	138,240	57,735	265

TABLE II.

SHOWING MONTHLY RETURNS OF EMIGRANTS, CREWS AND REJECTIONS.

Month.	*Ships Examined.*	*Pas-senyers.*	*Crews.*	*Rejected*
January	24	5,246	4.697	5
February	11	1,668	2,494	2
March	27	9,457	4.536	11
April.....	30	12,915	4,901	29
May	28	12,914	4,757	19
June	30	10,002	5,334	11
July	31	11,568	5,068	31
August	30	11,075	4,879	34
September.....	32	13,505	5,199	40
October.....	32	15,738	5,020	37
November.....	34	16 736	5,936	20
December	31	17,416	4,914	26
Total.....	340	138.240	57,735	265

TABLE III.

Showing Causes of Rejection of Emigrants.

Diseases.	No. rejected.
Skin Diseases :—	
Scabies	6
Dermatitis	4
Impetigo	2
Eczema	2
Eye Diseases :—	
Trachoma	36
Acute Conjunctivitis	4
Ophthalmia	1
Infectious Diseases :—	
Chicken pox	10
Small pox	5
Measles	2
Leprosy	6
Fever	152
Syphilis	8
Debility	5
Catarrhal Jaundice	6
Beri Beri	2
Inguinal Adenitis	2
Convulsions	1
Malaria	1
Ascites	1
Phthisis	1
Tuberculous Knee	1
Encephalitis	1
Otitis Media	1
Broncho-pneumonia	1
Abscess	1
Inguinal Hernia	1
Dysentery	1
Lunacy	1
Total	265

TABLE IV.

SHOWING THE NUMBER OF SHIPS DETAINED IN QUARANTINE WITH PORTS OF ORIGIN, CAUSES, DATES AND PERIODS OF DETENTION.

Name of Vessel.	From which Port.	Causes.	No. of Cases.	Date of arrival in Quarantine.	Date of departure from Quarantine.
Redsea	Dairen	Smallpox	1	19.1.34	19.1.34
Shantung	Swatow	,,	1	2 3 34	2.3.34
Pronto.....	In emigration	,,	1	12 3 34	12.3.34
Norviken	Swatow	,,	1	18.3.34	18.3 34
Sandviken	,,	,,	1	22.3.34	23.3 34
Yuen Sang.....	,,	,,	1	3.4.34	3.4.34
Hydrangea.....	,,	,,	1	4 4.34	4.4.34
Kut Sang	Amoy	,,	1	10.5.34	11.5.34
Tjinegara	,,	,,	2	15.5.34	15.5.34
Sheldon	Shanghai	Suspected Cholera (for observation)	1	18 9.34	18.9.34

TABLE V.

SHOWING THE NUMBER OF PASSENGERS, CREWS AND SHIPS ARRIVING IN QUARANTINE EACH MONTH, 1934.

Month.	No. of Passengers.	No. of Crews.	No. of Ships.
January	2,750	805	9
February	7,354	8,971	44
March	16,598	13,506	111
April	13,075	12,299	101
May	8,947	9,936	81
June	...	...	...
July	...	...	...
August	195	153	2
September	...	36	1
October	...	45	1
November	...	...	...
December	...	...	...
Total	48,919	45,751	350

TABLE VI.

SHOWING QUARANTINE NOTIFICATIONS ISSUED BY THE HONG KONG GOVERNMENT FOR 1934.

Port or Locality.	Disease.	Date of Notification.	Date of Cancellation.
Haiphong.....	Smallpox	No. 32 of 16th Jan., 1934	No. 277 of 13th April, 1934
Shanghai	,,	No. 83 of 5th Feb., 1934	No. 401 of 25th May, 1934

SECTION V.

Maternity and Child Welfare.

215. MATERNITY HOSPITAL ACCOMMODATION.

Hospital.	Authority in Control.	Beds.
Government Civil	Government Medical Dept.	21
Victoria	Do. Do.	32
Kowloon	Do. Do.	42
Tsan Yuk	Do. Do.	46
Wanchai	Chinese Committee.	31
Tung Wah	Do.	24
Tung Wah Eastern.....	Do.	18
Kwong Wah	Do.	59
Alice Memorial	London Mission.	14
St. Paul's	French Mission.	9
Canossa	Italian Mission.	1
Matilda	Board of Trustees.	8
War Memorial	Do.	6
Yeung Wo	Yeung Wo Directors.	6
Cheung Chau.....	St. John Ambulance Ass'n.	50
Kam Tin.....	Do. Do.	8
Sha Tau Kok	Do. Do.	7
Tsun Wan	Do. Do.	7
	Total..... ..	389

216. The maternity hospitals will be described under Section VI.

217. During the year the St. John Ambulance Association maintained four small lying-in hospitals in the New Territories. These were situated respectively in the villages of Kam Tin, Sha Tau Kok, Tsun Wan and Cheung Chau. A hospital of 50 beds was opened at Cheung Chau in the latter part of the year.

MIDWIVES.

218. Under the Midwives Ordinance of 1910 'No one whose name is not on the Midwives Register may practise midwifery habitually for gain or describe herself as one specially qualified to carry on the work of a midwife'.

219. Training Schools for Midwives have been established at the Government Hospitals, Alice Memorial and Affiliated Hospital, Tung Wah Hospital, Tung Wah Eastern Hospital, Kwong Wah Hospital and Yeung Wo Hospital.

220. The course of training is as follows:—

(*a*) for those who have less than two years general training two years at a Maternity Hospital recognised as such by the Board.

(*b*) for those who have had two years training in general nursing one year at a recognised maternity hospital.

(*c*) for those who are Registered Nurses (by examination) under the Nurses Registration Ordinance, Hong Kong, six months at such Maternity Hospital as aforesaid.

221. During 1934 fifty-three candidates satisfied the examiners at the Midwives Board Examinations and were registered. One, holding a Certificate from the Central Midwives Board, Great Britain, was registered without examination.

222. The total number on the Midwives Register at the end of 1934 was 283 (287 in 1933).

223. The number of midwives on the Government Midwives Establishment has been increased from eight to twelve by the appointment of midwives to Sai Kung, Ho Tung Welfare Centre at Sheung Shui, and two midwives to Ruttonjee Dispensary at Sham Tseung. Four of the midwives were detailed for extra duty in connection with the Chinese Public Dispensaries (Yaumati, Shaukiwan, Aberdeen and Kowloon City) and eight for duty in the New Territories (Un Long, Tai Po, Cheung Chow, Tai O, Sham Tseung (2), Sai Kung, Sheung Shui). The services of all Government midwives are free.

224. During the year 1,823 cases were attended by the Government midwives. The number was 1,605 in 1933, showing an increase of 218 in 1934.

ANTE-NATAL AND INFANT WELFARE WORK.

225. The ante-natal and infant welfare centres in the Colony are:—

The Government Infant Welfare Centre, Wanchai.
The Government Infant Welfare Centre, Kowloon.
The Tsan Yuk Hospital Centre.
The Tung Wah Hospital Centre.
The Alice Memorial Hospital Centre.
The Military Centre.

226. Infants are of course seen and treated at all hospitals both as inpatients and outpatients and at all the Chinese Public Dispensaries.

227. With regard to the New Territories, Government has made provision for infant welfare at the Government Dispensaries. The Government Travelling Dispensary which stops at road-side villages dispenses advice and medicines free. Two new Government Centres were opened during the year, one the Lady Ho Tung Welfare Centre near Ko Tung, the other the Ruttonjee Dispensary at Sham Tseng.

228. The St. John Ambulance Brigade have established ten centres in the New Territories where infants and mothers can receive treatment.

THE GOVERNMENT INFANT WELFARE CENTRES.

229. Infant welfare work was continued throughout the year in the Centre at 86A & B, Lockhart Road, Wanchai, where there has been a great increase in attendance. It was mentioned in the last annual report that the premises were too small for the numbers attending, and the further large increase in attendance has resulted in the work of this centre being hampered by overcrowding. It is expected, however, that the more spacious quarters in the new Health Centre, now in course of erection in Wanchai, will remedy this.

230. During the year under review Infant Welfare Work was extended to the mainland by establishing a Centre in Kowloon. This new centre was opened on June 1st, and the numbers already attending show the need for infant welfare work in the district. Situated on the ground floor of 225, Nathan Road, the premises were originally intended for a residential flat. They were altered as far as possible to meet the requirements of a Centre, and now consist of a waiting-room, bathing and weighing room, treatment and nursery room, dispensary, patients' latrines, staff dressing room, kitchen and servant's quarters.

231. *Attendance*:—The attendance at the two centres and other particulars of interest are shown in the following table:—

Month	Wanchai.		Kowloon.	
	Total Attendance	Daily Average	Total Attendance	Daily Average
January	1,018	39.15	...	...
February	796	36.19	...	...
March	977	39.09	...	...
April	1,142	47.58	...	...
May	1,402	56.08	...	...
June	1,399	55.96	364	15.52
July	1,507	60.28	810	32.40
August	1,507	57.96	891	34.23
September	1,671	69.63	1,295	54.00
October	1,837	70.65	1,510	58.00
November	1,803	72.12	1,438	57.52
December	1,753	73.04	1,362	56.75

	Wanchai	*Kowloon*
Maximum attendance on one day	116	70
Total for year	16,812	7,670
Infants under supervision	1,584	835
Average age at first visit	3 months 10 days	5 months
Percentage breastfed at first visit.	67.4 per cent.	70 per cent.
Percentage of males	50.4 ,,	51.4 ,,
Percentage living near Centre	80 ,,	74 ,,
Number of vaccinations performed	276	114

232. *Disease*:—At the first visit to the Centres, the great majority of infants required medical treatment. The numbers suffering from the more prevalent diseases and disorders are tabulated under:—

	Wanchai	*Kowloon*
Digestive Disturbances	500	301
Gastro-Enteritis	72	63
Malnutrition	324	247
Infected Umbilicus	63	29
Umbilical Hernia.....	101	64
Conjunctivitis	340	153
Discharging Ears	25	18
Thrush	211	128
Skin Diseases	426	388
Phimosis	176	117
Jaundice	38	16
Anaemia	51	30
Congenital Syphilis	14	7
Rickets	51	15
Respiratory diseases.....	657	348

233. *General Remarks*:—In view of the fact that some 68 per cent of the infants were either wholly or partly breast-fed when they first attended the Centre, it is remarkable that such a large number were suffering from some digestive disturbance. It was found that irregular feeding and unsuitable supplementary food were the common causes of this. In both centres, therefore, we are attacking this problem by the careful instruction of mothers in the need for regular feeding, and by impressing upon them the importance of correctly diluted cow's milk for supplementary feeds.

234. In this connection, the Society for the Protection of Children gives valuable aid in supplying free milk to the poorer mothers, in cooperating with us in the instruction of the mothers, and in visiting the homes of cases referred to them.

235. Home visits are also paid by the nursing staff of the Wanchai Centre and will be started at the Kowloon Centre when there is sufficient staff.

236. *Soup Kitchens*:—A free distribution of soup to poor nursing mothers and under-nourished older babies was started at Wanchai on January 22nd and at Kowloon on June 1st. This has been continued for the remainder of the year in the afternoons, with a daily average of about 20 free meals at each centre. Free soup is a great boon to these poor people, and is doing much to improve the health of their babies.

237. *Staff*:—The Infant Welfare Staff consists of one European Lady Medical Officer, one Chinese Lady Medical Officer, four nurses, two dispensers, one interpreter, two amahs and two coolies. In addition valuable assistance has been given by some voluntary workers, in particular by Mrs. C. W. E. Bishop, who attended the Wanchai Centre every Monday regularly throughout the year.

THE TSAN YUK INFANT WELFARE CENTRE AND ANTE-NATAL CLINIC.

238. The Infant Welfare Clinic, which is held every Friday morning, was conducted by one or more of the Government Lady Medical Officers up to the end of September and from the 1st of October by the Gynaecological and Obstetrical Unit of the University. The Clinic is restricted to babies who have been born in the hospital and the number of new cases was 628 (496 in 1933) and the number of old cases 1,796 (1,495 in 1933). The average attendance per clinic was 47.52 (41.47 in 1933).

239. The ante-natal clinic has been in existence for more than four years and the number of cases is increasing gradually. The total number of patients who attended the clinic was 223 and the total number of visits paid was 319. The Chinese look upon pregnancy as a normal occurrence and as a rule they come to the clinic only to find out the probable date of delivery.

THE ALICE MEMORIAL INFANT WELFARE CENTRE AND ANTE-NATAL CLINIC.

240. The Alice Memorial Infant Welfare Centre like that of the Tsan Yuk deals only with babies who have been born in the hospital. There were 340 first visits and 515 return visits.

241. At the Ante-Natal Clinic there were 216 first visits and 97 return visits.

THE CHINESE HOSPITALS INFANT WELFARE CENTRE.

242. The Tung Wah Infant Welfare Centre is held once a week under the supervision of the Western trained medical officers. The babies are weighed and the mothers advised concerning feeding and care of infants. The total number of attendances was 2,291, that for 1933 was 1,270.

243. The Childrens' Clinic at the Kwong Wah Hospital is held twice a week. The number of cases seen was 2,670. An Ante-Natal Clinic is held weekly in the Maternity Block, where 259 cases were seen during the course of the year.

SECTION VI.

Hospitals, Institutes, Etc.

GOVERNMENT INSTITUTIONS.

244. The Government Hospitals are:—The Government Civil Hospital, the Victoria Hospital, the Kowloon Hospital, the Tsan Yuk Hospital, and the Infectious Diseases Hospital.

GOVERNMENT CIVIL HOSPITAL.

245. The Government Civil Hospital, which was built in 1874 and which occupies a site in the middle of the most populous area, is the largest Government hospital in the Colony. It has accommodation for 246 patients, including the 21 maternity beds, which are in a Bungalow separated from the main buildings. The majority of the maternity beds and about 100 beds in the main building are under the control of the Clinical Professors of the Hong Kong University, who have been appointed respectively Physician, Surgeon, and Obstetric Physician to the hospital and who are responsible to the Director of Medical and Sanitary Services for the duties they perform in the hospital. They have also been appointed consultants to Government. The University Clinic do all the outpatient work except that connected with the Venereal Diseases Clinic which is attended to by the Government Venereal Diseases Specialist.

246. Dr. J. E. Dovey was Medical Officer in charge until 8th February 1934, when Dr. D. J. Valentine, M.C., took over charge for the remainder of the year. Dr. G. H. Thomas and Dr. A. D. Wong were assisting.

247. The number of inpatients, exclusive of those in the maternity block, was 5,063 (5,113 in 1933), of which 1,034 were treated by the University staff and 4,029 by the Government Medical Officers.

248. The 1,034 patients treated by the University staff were made up as follows:—

Medical cases	406
Surgical cases	487
Gynaecological cases	141

249. The daily average number of inpatients was 196, that for the previous year was 197.

250. The nationality of the patients was:—

Chinese	3,586
Indian	1,052
European	260
Portuguese	50
Russian	29
Japanese	27
Other nationalities	59
	5,063

251. A large proportion of the total patients receive treatment free of charge.

252. There were 317 deaths. The case death rate was 62.5 per mille (51.24 per mille in 1933).

253. 1,273 major operations were performed (1,169 in 1933). Of these 703 were from the University Surgical Clinic, 102 from the University Gynaecological Clinic and the remaining 468 were performed by the Government Medical Officers.

254. There were 954 accidents of a nature so serious as to require treatment as inpatients (934 in 1933).

255. *Police Wards.*—The total number of admissions and deaths were as follows:—

	Admissions.	*Deaths.*
British	71	—
Russian shipguards	22	—
Indians	787	5
Chinese (Cantonese)	54	—
Chinese (Wei-hai-wei)	161	—
Total	1,095	5

256. The daily average number of Government Servants treated by the Government Medical Officers as outpatients was 36 (32 in 1933).

257. *Outpatients Department.*—This department is open both morning and afternoon. The number of attendances, exclusive of Venereal Diseases cases, was 32,478 (51,925 in 1933). In addition there were 15,688 attendances for dressing (14,618 in 1933). The number of prescriptions dispensed was 63,224 (63,262 in 1933). The number of vaccinations was 1,076.

Maternity Bungalow at the Government Civil Hospital.

258. The Bungalow has accommodation for twenty-one patients and is mainly for the use of Asiatic women.

259. There are three general wards with a total of sixteen beds, two private wards with two beds each and one isolation ward with one bed.

260. The majority of patients are under the care of the Professor of Obstetrics of the University, he being at the same time Obstetric Physician to the Government Civil Hospital.

261. The admissions during the year were 939 (912 in 1933), making a total of 954 cases treated. There were altogether 705 deliveries of which 123 cases were under the care of the Government Medical Officers and 682 under the Professor of Obstetrics and his Assistants.

262. The daily average number of patients in the hospital was 21 excluding infants.

263. The Nationalities of the patients were as follows:—

English	1
Portuguese	7
Japanese	18
Indians	66
Chinese	862
Total	954

264. There was one Maternity death from Anaemia and heart failure. Twenty eight infants were stillborn and 4 died of prematurity.

265. The reports of the Professors in charge of the various University Clinics will be found in Appendix D.

The Mental Hospital.

266. The Mental Hospital which is an annex to the Government Civil Hospital has accommodation for 14 Europeans and 18 Asiatics.

267. This institution is intended for use only as a temporary abode for the mentally affected pending arrangements being made for their transfer to Europe or Canton.

268. The Medical Officer of the Government Civil Hospital is in administrative charge.

Patients.

Remaining from 1933	37	
Admissions during the year.....	307	
	——	344
Discharged apparently cured	97	
Discharged relieved	80	
Transferred to the Canton Mental Hospital	124	
Died	3	
Remaining at end of 1934	40	
	——	344

Daily average number of patients 44.2.

VICTORIA GENERAL AND MATERNITY HOSPITAL.

269. The Victoria Hospital which was originally built for the accommodation of women and children is now a general and maternity institution. Situated in the residential area well above the level of the town it has a clear view across the harbour of the territory on the opposite side. There are 42 general beds and 32 maternity beds, in separate blocks with entirely separate staff for each building.

270. Dr. I. Newton was Medical Officer in Charge at the commencement of the year until 24th February 1934, when he went on leave and was relieved by Dr. J. E. Dovey.

271. During the year 430 cases were treated, 359 in the General Block and 71 in the Maternity Block. The patients treated in the General Block were men 59, women 181 and children 119. There were 5 deaths.

272. The daily average number of patients exclusive of maternity patients was 12.3.

273. The Nationality of those treated was:—

European	324
Chinese	12
Other nationalities	23
Total	359

The Maternity Block.

274. The number of beds in this hospital is thirty-two.

275. The admissions during the year were 65 (111 in 1933). The total number of cases treated was 71 (120 in 1933).

276. There were 59 deliveries with two stillbirths. There was no maternal death.

277. The daily average number of patients was 3 mothers and 2.5 infants.

278. The Maternity Block is available for private patients who wish to be attended by their own doctors. Eight patients availed themselves of the privilege.

KOWLOON HOSPITAL.

279. This hospital is sitatued on the mainland. It consists of four two storied blocks, one of which, containing 42 beds is reserved for Maternity cases.

280. The total accommodation of the hospital is 140 beds, 48 of which were added during the year by the opening of a new general block in June.

281. Previous to the opening of the new block the Maternity Block had been used for general cases only. The opening of this block for the reception of Maternity patients filled a long felt want as there was no provision on the mainland for European women. Private patients may be attended by their own doctor if they so desire. During the latter half of the year 170 patients were admitted of whom 7 were attended by their own doctors.

282. Dr. J. T. Smalley, Senior Medical Officer, has been in charge during the year, assisted by Dr. P. F. S. Court and Dr. C. H. Luk. Dr. J. B. Mackie gave occasional assistance until he went on leave when he was succeeded by Dr. K. H. Uttley. In addition a succession of Chinese Medical Officers have also rendered assistance. At present the hospital has the full time service of Dr. C. K. Yu.

283. C. Block was opened for 3rd Class Class Chinese Male patients on 7th June, 1934.

284. The total number of cases treated in hospital was 2,536 as compared with 2,321 in 1933.

285. The nationalities were made up as follows:—

	Males.	*Females.*	*Total.*
European	380	324	704
Chinese	1,341	422	1,763
Indians	11	9	20
Others	35	14	49
	1,767	769	2,536

286. The deaths numbered 192 of these 124 being Males and 68 being females.

287. The daily average number of patients was 88.7 (70.9 in 1933).

288. During the year 785 operations were performed under general anaethesia (610 in 1933).

289. The number of police admitted was as follows:—

Europeans.	*Chinese.*	*Indians.*
60	183	0

Outpatients Department.

290. The number of outpatients' visits recorded as compared with previous years were as follows:—

	1930.	*1931.*	*1932.*	*1933.*	*1934.*
New cases	9,471	9,731	10,449	12,439	13,813
Old cases	3,029	5,333	7,167	7,040	8,986
Dressings	5,482	6,833	8,111	8,331	9,512
	17,982	21,897	25,727	27,810	32,311

In addition 542 vaccinations were performed.

291. The number of prescriptions dispensed during the year was 18,328 (12,978 in 1933).

Maternity Block.

292. The Block was opened for Maternity cases on 7th June.

293. The number of beds in this hospital is forty-two.

294. The admissions during the year were 170, 9 of them remaining in hospital at end of 1934:—

Parturition	148
Pregnancy	15
Abortion	1
False Labour	3
Mitral Incompetence	1
Contusion of chest wall	1
Miscarriage	1
Total	170

295. There were 140 deliveries with 5 stillbirths. There was one case of twins. There was one maternal death.

296. The daily average number of patients was 8.2.

THE TSAN YUK HOSPITAL.

297. This hospital which was formerly administered by the Committee of the Chinese Western Dispensary, was handed over, as a gift, to Government on January 1st 1934.

298. The total number of beds is 60, of which 46 are reserved for maternity cases and 14 for gynaecological patients.

299. Dr. (Mrs.) A. L. J. Dovey was responsible for the administration of the Hospital and Out-patient Department, until July, when the administrative duties were transferred to the Medical Officer in Charge of the Civil Hospital.

300. The treatment of the intern patients has been for several years under the University Obstetrical Clinic and in September the Clinic was made responsible for all treatment, both intern and extern.

301. The total number of cases treated was 1,968 of whom 37 remained from 1933 and 1,931 were admitted. There were 10 deaths.

302. The maternity cases numbered 1,729 of whom 1,582 were delivered. Six Mothers and 35 infants died and there were 71 Still-births.

303. The causes of the infantile deaths were as follows:—

Prematurity	28
Hydrocephalus	1
Cerebral haemorrhage	1
Congenital Syphilis	3

304. The number of cases treated in the Gynaecological Department numbered 239. There were 4 deaths. 113 operations were performed.

305. The following table shows the attendances at the Outpatient Department:—

Clinic	New cases	Return visits	Average attendance at clinic	Total 1933	Total 1934
Gynaecological	695	789	29.1	1,107	1,484
Venereal Diseases	468	1,309	36.26	1,848	1,777
Antenatal.....	96	223	6.25	263	319
Infant Welfare	628	1,796	47.52	1,991	2,424
Total.....	1,887	4,117	29.28	5,209	6,004

VENEREAL DISEASES CLINICS.

306. Dr. J. A. R. Selby, Government Venereal Diseases Officer, was in charge during the year, assisted by Dr. Cheung Kung Leung (Chinese Medical Officer) and Mr. A. Steven (Technical Assistant).

307. Miss. Brown (Nurse) resigned on 1st November, and Miss. Ivy Soong was appointed in her place.

308. The Government Lady Medical Officers, Doctors Lai, Ruttonjee, and Cheng, assisted at the clinics for women.

309. There are now four Government V.D. Clinics:—

(*a*) at the Government Civil Hospital.

(*b*) at the Kowloon Hospital.

(*c*) at South Kowloon (Tsim Sha Tsui) close to the docks.

(*d*) at Tsan Yuk Hospital.

All treatment is given free of charge.

310. Clinics are held daily as follows:—

At the Government Civil Hospital:—

Mondays and Wednesdays.—10 a.m. for Chinese.
Tuesdays.—10 a.m. and 5 p.m. for European.
Thursdays.—10 a.m. for Indians.
Fridays.—10 a.m. for women only.

At the Kowloon Hospital:—

Tuesdays.—2.30 p.m. for males only.
Fridays.—2.30 p.m. for women only.

At the South Kowloon Centre:—

Mondays.—10 a.m. and Thursdays.—2 p.m. for Indians.

Mondays.—2.30 p.m. for women only.

Tuesdays.—10 a.m. and Fridays.—2.30 p.m. for Chinese Males.

Tuesdays.—2.30 p.m. and Saturdays.—10.30 a.m. for Europeans.

This Clinic is open daily from 8 a.m. to noon and from 1 p.m. to 8 p.m. for the treatment of males and from 12 noon to 1 p.m. for the treatment of females. A trained dresser is in charge of the male treatments and a nurse in charge of the female treatments.

311. A new Clinic in the Wanchai district should be ready for occupation during the ensuing year. Provision is also being made in the New Out-patient Department at the Kowloon Hospital.

312. 24 beds were reserved for V.D. Male cases in the G.C.H., and these were kept full throughout the year. There is still an urgent need for beds for female cases.

313. The total number of new cases treated was 5,109 as compared with 4,331 in 1933 and 2,881 in 1932.

314. The total number of attendances was 24,341 as compared with 17,143 in 1933 and 10,733 in 1932. Of these males numbered 18,811 and females 5,530.

315. The nationality and sex of new cases treated at the above clinics were as follows:—

	1933.		*1934.*	
	Male.	*Female.*	*Male.*	*Female.*
Europeans	157	4	162	1
Chinese	2,998	1,027	3,392	1,302
Indians	141	4	221	—
Other Nationalities	0	0	29	2
	3,296	1,035	3,804	1,305

316. The diseases treated:—

	1933.		1934.	
	Male.	*Female.*	*Male.*	*Female.*
Syphilis	1,649	398	1,609	381
Chancroid	132	—	259	—
Gonorrhoea	358	240	702	275
Syphilis with Gonorrhoea	122	53	156	58
Observation	948	343	900	406
Other diseases	42	1	178	185
	3,296	1,035	3,804	1,305

317. 7,177 specimens of blood were sent to the Bacteriological Institute for Wasserman test, the results being as follows:—

	Males.	*Females.*	*Total.*
Strong Positive	1,893	473	2,366
Positive	418	138	556
Weak Positive	437	115	552
Doubtful	485	99	584
Negative	2,188	931	3,119
	5,421	1,756	7,177

318. 10,491 injections of N.A.B. and 1,247 injections of Bismuth were given to the out-patients.

Tsan Yuk Hospital V. D. Clinic.

319. This Clinic is held weekly in the Outpatient Department of the Tsan Yuk Hospital, under the direction of the Professor of Obstetrics of the Hong Kong University.

320. 468 new patients were treated. There was a total of 1,777 attendances (1,394 in 1933).

321. The diseases treated were as follows:—

	1933.	*1934.*
Syphilis	85	130
Syphilis with gonorrhoea	69	14
Gonorrhoea	151	52
Soft Chancre	—	—
No apparent disease	149	272
Total	454	468

322. 5 injections of N.A.B. were given.

323. 492 specimens of blood were sent to the Bacteriological Institute for examination with the following results:—

Positive	168
Negative	295
Doubtful	29
Total	492

324. 610 injections of N.A.B. and 10 injections of Bismuth were given to outpatients.

Hospital Outpatient Treatment.

325. Venereal cases were seen at the outpatient departments of the various hospitals and dispensaries.

X-RAY, MASSAGE AND ELECTRO-THERAPEUTIC BRANCH.

326. Dr. F. J. Farr was in charge of this branch during the year. He was assisted by Mr. J. Skinner, M.S.R., B.P.A. as Radiographer, Miss L. M. Siggins, C.S.M.M.G., B.P.A., and Miss M. H. Hughes, C.S.M.M.G., B.P.A., as Masseuses and Electrotherapists.

327. Miss. I. Warbrick, M.S.R., was appointed X-Ray Sister on the retirement of Miss. C. S. Mackenzie on May 10th.

328. Mr. J. Robertson, Radiographer, Class I. R.A.M.C., was appointed on February 1st.

329. Miss E. Anderson, having completed two years as Pupil Masseuse was allowed to take her final examination in December and satisfied the examiners in all subjects. Two Volunteer Pupil Masseuses, Miss. D. Beaumont and Miss. E. Poon were accepted for training in October.

330. Mr. Hong Ping Yuen was seconded from the Electrical Department, P.W.D., as Technician in charge of X-Ray and Electrical apparatus. This appointment has been most successful, and urgent repairs have been considerably expedited. and the general maintenance of the apparatus greatly improved in consequence.

331. The increase in the work of all branches noted in 1933 was maintained. The following tables show the figures for the three years 1932, 1933, and 1934:—

	1932.	*1933.*	*1934.*
Massage and electric treatments	9,498	10,579	12,947
Radiological examinations	2,696	3,076	3,991
Films exposed	4,521	5,477	8,208

332. From June 1st. the routine use of X-Ray paper was instituted for suitable cases. 1,832 sheets were used, at a saving of $958, over the cost of films. The great increase in the number of films used was largely due to the very large number of cases referred for extensive examination—Barium Meals, Pyelography, and Cholecystography. These examinations will increase in frequency as the clinicians continue to appreciate the value of such for differential diagnosis in obscure cases.

333. Of the total Radiological examinations 3,133 were done at the Government Civil Hospital and 858 at the Kowloon Hospital against 424 at the latter Hospital in 1933.

334. The apparatus at Kowloon was rebuilt by the Electrical Department, P.W.D., and while still unsatisfactory for many modern methods of radiography, is now able to handle most routine examinations.

335. The increase in the number of films handled at Kowloon necessitated the installation of a "Frigidaire" controlled developing system which was built locally on the lines of that already in use at the G.C.H. It has been completely satisfactory in use.

336. During the year an X-Ray tube was destroyed by puncture owing to excessive humidity.

337. Of the total number of Massage and electrical treatments 4,939 were carried out at the Government Civil Hospital, 7,077 at the Kowloon Hospital, and 931 at the Victoria Hospital.

338. The opening of the new wards at Kowloon Hospital resulted in the accommodation for the Massage and electrical treatment becoming so inadequate that work was almost impossible. Two small wards on the ground floor of "A" block were converted for these purposes late in June, and proved much more satisfactory. In 1933, 3,634 treatments were carried out.

339. There is a great need for more extensive and appropriate accommodation for X-ray, massage, and electro-therapy work both at the Government Civil Hospital and at Kowloon. The building of the new G.C.H. will eventually house an up to date installation for both purposes, and a special building for both purposes at Kowloon is urgently required.

340. Considerable use was again made of the Radium lent by the Matilda Hospital. It is certain that the value of this Radium will be very greatly enhanced, from a therapeutic point of view, when modern X-Ray Therapy is available. Even in centres where Radium to the amount of six or seven grammes is available the provision of at least two X-Ray Therapy plants is considered necessary.

GOVERNMENT DISPENSARIES.

341. The Dispensaries maintained by Government during the year under review were the Taipo Dispensary, the Un Long Dispensary, the Ruttonjee Dispensary, the Lady Ho Tung Welfare Centre, the Sai Kung Dispensary and the Tai-O Dispensary, all in the New Territories. Details with regard to these will be found in Section X which deals with the New Territories.

THE GOVERNMENT INFECTIOUS DISEASES HOSPITAL.

342. This was originally a Police Station but was adapted as a hospital and has accommodation for 26 beds in six wards. The hospital is situated very close to the extreme western end of the Island and next door to the Tung Wah Smallpox Hospital. It is admirably situated for its purpose being more or less isolated yet convenient for access by ambulance, by bus, or by launch.

343. Dr. G. V. A. Griffith was in charge until February 1st. when Dr. L. D. Pringle took over and was in charge during the remainder of the year.

344. During the year the buildings were completely renovated and redecorated. The electrical wiring was all renewed.

345. The total number of admissions during the year was 8. There were no deaths. The following table shows the nature of the diseases.

Diseases.	Admissions.	Deaths.
Small-pox	6	—
Measles	1	—
Chicken-pox	1	—

Of the small-pox cases three were infected outside the Colony.

THE CHINESE HOSPITALS AND DISPENSARIES.

346. The Chinese Hospitals and Chinese Dispensaries are institutions established by the Chinese for the benefit of the poor of Chinese nationality. Intended to be additional to, not in substitution of, the Government Hospitals they serve a very useful purpose not only in the matter of medical relief but in that of health education.

347. An enormous and ever-increasing number of sick too poor to pay a doctor's fee or to buy proper medicine, are successfully reached.

348. There are three general hospitals each with maternity wards attached, one smallpox hospital, one maternity hospital and nine public dispensaries.

349. They are maintained by subscriptions from the public, by donations from the Chinese General Charities Fund and by direct grants from Government. They are controlled by Chinese Committees who work in close co-operation with the Secretary for Chinese Affairs.

350. In the three big hospitals the patient can choose between Western and Chinese methods of treatment, but in the Maternity Hospitals and Dispensaries Western Medicine only is practised. Government Lady Doctors hold gynaecological clinics in each of the dispensaries once or twice a week.

351. Both Hospitals and Dispensaries are subject to inspection by the Government Medical Department. There are four officers of the Department whose duty it is to visit the various institutions and to give advice and assistance. These officers work in close touch with the Secretary for Chinese Affairs.

The Chinese Hospitals.

352. The Tung Wah Hospital situated in the centre of the most thickly populated area in Victoria was founded by the Chinese in 1873 with the help and encouragement of the Government. It took the place of a Home for the Dying which had been conducted by charitable Chinese, and it was intended to provide treatment by Chinese herbalists, and accommodation in sanitary surroundings for the poor of the Chinese race.

353. Originally intended for the accommodation and treatment of those Chinese whose fears and prejudices against Western Medicine prevented their applying for relief at the Government Hospitals, the Tung Wah at a later period introduced and encouraged scientific methods. As prejudice disappeared and confidence grew the demand for Western medicine increased until now the number being treated by this method equals that which still pins its faith to the plasters and decoctions of the herbalists.

354. The Tung Wah Smallpox Hospital situated at the extreme west end of Victoria was erected in 1902.

355. The Tung Wah Eastern Hospital situated at the extreme east end of Victoria was opened in 1929.

356. The Government gave the sites and with grants of money assisted in the erection of the buildings.

357. The Kwong Wah Hospital situated in the Central District of Kowloon was built in 1911 to meet the needs of those resident in the Peninsula. The funds for its erection were raised by public subscription.

358. In administrative control of the four hospitals is the Tung Wah Committee, a body of Chinese gentlemen elected each year by the subscribers.

359. The activities of the Chinese Hospitals include:—

(*a*) The care of the sick and treatment by Western methods or Chinese methods according to the wishes of the patients.

(*b*) Maternity benefits and infant welfare by Western methods only.

(*c*) Vaccination.

(*d*) Health propaganda.

(*e*) Assistance to the destitute.

(*f*) The provision of coffins for and the burial of the dead.

360. Much progress has been made in all departments of the hospitals during the last few years. These improvements include:—

(*a*) The appointment of University graduates as full-time Resident Medical Officers.

(*b*) The foundation of training schools for female nurses.

(*c*) Extensions and improvements in the male nursing section.

(*d*) The establishment of clinical laboratories.

(*e*) The provision of radiological apparatus.

(*f*) The establishment of up-to-date operating theatres.

(*g*) The purchase of motor ambulances.

(*h*) Improvements in the accommodation for patients.

(*i*) Improvements in quarters for the staff.

361. Today each of the three Chinese Hospitals has a good operating theatre where operations are performed daily, many of which are major in character.

362. In charge of the medical side (Western) of each hospital is a Medical Superintendent, a graduate of the University, whose salary is paid by Government, and who is a member of the Medical Department.

THE TUNG WAH HOSPITAL.

363. The year 1933 witnessed the demolition and reconstruction of a considerable portion of this institution. Established in 1873 and added to from time to time it had become a confusing assemblage of buildings some of which were much below the standard required in a modern hospital or infirmary. As mentioned in the 1933 annual report the wards were, many of them, old, dark, and in some respects insanitary but they provided shelter, food and medical attendance for many sufferers who would otherwise have had no means of relief.

364. Nothing short of demolition and reconstruction could make the place satisfactory. There were of course sentimental objections to the demolition of the fine old assembly hall where year after year the directors had met and discussed the problems confronting them but space was very limited and it was not possible to retain the old hall and at the same time erect a building which would meet the requirements of the situation. It was decided therefore to raze the hall and the insanitary buildings and construct in their place a six storey modern hospital incorporating in it a new assembly hall.

365. The New Block, which was opened to receive patients early in 1934. contains accommodation for 144 beds. The whole hospital now has accommodation for 451 beds. It is hoped to replace the remaining out-of-date buildings as funds become available.

366. The staff consists of a Chinese Medical Officer of the Government Medical Department and three Resident Medical Officers whose salaries are paid by the Hospital. There are in addition a number of Chinese Herbalists who practise Chinese medicine for the benefit of those who perfer that treatment.

367. *Inpatients (General).*

	Western treatment.	*Chinese treatment.*	*Maternity Cases.*	*Total.*
1933	5,588	4,491	1,600	11,679
1934	5,671	5,480	1,320	12,471

368. There were 1,443 operations including 360 major cases.

369. *Outpatients (General).*

	Western treatment.	*Chinese treatment.*	*Total.*
1933	28,443	179,821	208,264
1934	23,227	159,511	182,738

370. *Eye Clinic.*

1933	12,540
1934	13,883

371. *Baby Clinic.*

1933	1,270
1934	2,291

372.

	Deaths.	*Brought in dead.*
1933	2,249	1,042
1934	2,170	687

373. A large proportion of the deaths in the Hospital occur within 24 hours of admission. The sick poor go there to die. Those brought in dead include bodies sent from ships in harbour, from neighbouring hospitals, from the Public Dispensaries and from private houses. All are taken to the Tung Wah for the benefit of free coffining and free burial.

THE KWONG WAH HOSPITAL.

374. This hospital does for Kowloon and the Peninsula what the Tung Wah and the Tung Wah Eastern do for the Island of Hong Kong. There is official accommodation for about 326 beds, of which 229 are for general diseases, 40 are for tuberculosis cases and 59 are for maternity cases. There are 18 private wards including 7 for maternity cases.

375. The accommodation cannot keep pace with the growth in population. Kowloon has considerably more than doubled itself during the last ten years. No patient is turned away for want of room and in both medical and surgical wards it is common to find two in a bed, and others sleeping on the floor.

376. The staff consists of a Senior Resident Medical Officer whose salary is paid by the Government, and three Assistant Medical Officers paid by the Directors.

377. There are also a number of Chinese Herbalists who practise Chinese medicine and are paid out of Hospital funds.

378. The patients, on admittance, can choose whether they desire treatment on Western or Chinese lines.

379. *Inpatients.*

	Western treatment.	*Chinese treatment.*	*Maternity Cases.*	*Total.*
1933	6,082	3,195	4,006	13,283
1934	5,902	2,883	4,406	13,191

380. There were 309 major operations, the number for 1933 being 261.

381. *Outpatients.*

	Western treatment.	*Chinese treatment.*	*Total.*
1933	40,373	114,627	155,000
1934	45,934	138,745	184,679

382. There were 3,813 eye cases as compared with 1,824 for the previous year.

383. The number of deaths in hospital was 3,444, of which 2,149 were admitted in a serious condition and died within 48 hours.

384. There is a small laboratory where facilities are available for ordinary routine microscopic examination.

385. A children's clinic is held twice a week. The attendance numbered 2,670.

386. There is also an antenatal clinic held once a week in the Maternity Block. The number of cases seen was 259.

THE TUNG WAH EASTERN HOSPITAL.

387. This hospital is situated at the eastern part of the City of Victoria. It was built in 1929: and overlooks the Sookunpoo Valley playing-fields. It has modern fittings and equipment. All the wards have through and through ventilation and there is a modern well-lighted operating theatre. It has accommodation for 260 beds, of which 218 are for general, 14 for maternity and 28 for tuberculosis patients

388. The staff consists of a Chinese Medical Officer whose salary is paid by Government, and two Assistant Medical Officers appointed by the Directors.

389. As in the other Chinese Hospitals, patients, on admission, can choose whether they wish to be treated by the Western trained Medical Officers or the Chinese Herbalists.

390. *Inpatients.*

	Western treatment.	*Chinese treatment.*	*Maternity Cases.*	*Total.*
1933	2,560	2,680	767	6,007
1934	3,050	2,528	954	6,532

391. *Major Operations under General Anaesthesia.*

1933	151
1934	186

392. *Outpatients.*

	Western treatment.	*Chinese treatment.*	*Total.*
1933	22,211	52,005	74,216
1934	22,117	58,954	81,071

393. *Vaccination.*

1933	443
1934	854

394. Two wards have been set aside (one male and one female) for patients who are able to make some payment but who cannot afford a private room. The charge in these wards is $1.40 per day including food and medicine. Each patient can, if he desires, bring in an attendant to help in looking after him. There are 14 beds in the Male ward and 8 in the Female.

395. There are 24 small private wards where the inclusive fee per day is $3.00. The wards are popular.

396. A ward of 12 beds has been reserved for the treatment of opium addicts. These patients are mostly business men who find they cannot afford the luxury of opium in these days of depression. They appear to be earnest in their desire to rid themselves of their handicap. The course of treatment is usually complete within three weeks. The cost is defrayed by Government. During the year 413 patients were treated.

397. Deaths in 1934 numbered 1,350. A large proportion of these died within 24 hours of admission. 667 bodies were brought in for burial.

THE TUNG WAH SMALLPOX HOSPITAL.

398. The Tung Wah Smallpox Hospital, erected in 1902 for the herbal treatment of smallpox cases, consists of six wards arranged in three two-storied blocks and faced by another group of three two-storied blocks intended for staff quarters and for administration purposes.

399. At a distance and separated by a yard are the kitchens, the servants quarters and the mortuary. The whole is contained in a large compound.

400. All the blocks are connected by covered ways.

401. This hospital at the time of its construction was considered to have all the requirements necessary for the proper treatment of smallpox cases by Chinese methods.

402. There was room for 60 cases without overcrowding but there was no arrangement for heating the wards and no water carriage system.

403. The staff consists of a Chinese coolie as a caretaker and an amah. There is no resident doctor and no clerk and there are neither dressers nor nurses.

404. A herbalist from the Tung Wah visits daily and prescribes infusions but there is no attempt at nursing. Certain hospital clothing is provided but the patients as often as not wear their own clothes.

405. Considered to be a herbalist hospital it is seldom visited by any of the Western-trained Tung Wah staff, and for all practical purposes it is controlled by the caretaker and the herbalist. There being no trained staff resident and the control being such as it is there must be grave doubts regarding the efficiency of the disinfection processes and the means taken to prevent dissemination of disease by patients, contacts and formites.

406. 47 cases of smallpox were admitted during the year. There were 18 deaths, giving a case death rate of 47.9 per cent.

407. For some years this institution has been neglected with the result that the fabric is now in a very dilapidated condition.

408. There can be no doubt that conditions at this hospital are unsatisfactory both from the point of view of the patients and that of the public.

THE WANCHAI OR EASTERN MATERNITY HOSPITAL.

409. This hospital is run in conjunction with the Eastern Dispensary. It is in charge of a Western-trained Chinese Doctor and continues to provide most satisfactory and efficient service for this densely populated district.

410. The total number of beds is 31, and the number of admissions 857. This shews a slight falling off from last year when the number was 903. There was one maternal death during the year. The smaller number of patients is in all probability due to the greater use that is now being made of the Tung Wah Eastern Hospital.

THE CHINESE PUBLIC DISPENSARIES.

411. The origin of the Chinese Public Dispensaries was a movement made in 1904 by certain leading Chinese citizens to stop the practice of dumping dead bodies by providing receiving houses for the sick and for the dead which would act also as information bureaux where the poor could obtain advice and assistance in matters connected with:—

(*a*) the removal of patients to hospital.
(*b*) certification as to cause of death.
(*c*) removal of corpses to mortuaries.
(*d*) supply of coffins and arrangements for burial.
(*e*) the registration of births.
(*f*) vaccination.

412. In 1905 two depôts were established, the Western and the Eastern, under a Committee, consisting of the Chairman of the Tung Wah Board of Directors and the two unofficial Chinese members of the Sanitary Board.

413. In immediate charge of each depôt was a Chinese doctor qualified in Western medicine and his staff consisted of an English-speaking clerk and a number of subordinates.

414. In 1908 the movement ceased to be connected with the Tung Wah and the Committee became the Chinese Public Dispensaries Committee under the Chairmanship of the Registrar General, now the Secretary for Chinese Affairs.

415. It was declared at the time that the work of the depôts or dispensaries was not hospital work and that the Chinese doctors employed were simply to diagnose disease and not to treat it. However, treament centres were needed and treatment, commenced in a small way, gradually developed until now the principal function of the dispensaries is medical relief.

416. It is worthy of note that as far back as 1896 a Commission appointed by Government to advise regarding the Medical Department recommended the establishment under Government control of dispensaries in different parts of Victoria and Kowloon. However, none were built and the Chinese Public Dispensaries today occupy the positions which under other circumstances would have been filled by departmental institutions.

417. There are now nine Chinese Public Dispensaries, five on the island of Hong Kong and four in Kowloon. The Tsan Yuk Maternity Hospital, which was formerly administered by the Committee of the Chinese Western Dispensary, was handed over to Government as a gift on January 1st., 1934.

418. Two of the Dispensaries are still housed in rooms attached to temples. Another, that at Aberdeen, consists of two rented shops temporarily adapted for the purpose. Gradually up-to-date buildings are taking the place of the temporary ones. The Dispensaries at Shaukiwan and Wanchai are excellent buildings of their kind, as are also those of Yaumati and Kowloon City on the Kowloon side. The Western Dispensary has been much improved. The Central Dispensary is very small for the work it does.

419. As mentioned before, once a week at each of the Dispensaries a gynaecological clinic is held by one of the Government Lady Medical Officers. In some there are two clinics a week.

420. Situated in the most thickly populated districts they fulfil a most useful purpose, not only in the treatment of disease but also as foci for the spread of knowledge concerning the cause of disease, and as the means of spread of the value of Western drugs and methods both in prevention and cure. During the year very good propaganda work was done by four street orators appointed by the Committee.

421. Last but not least, each dispensary has a room attached to it where dead bodies can be received for transport to the mortuaries preliminary to burial. Coffins are provided free.

SUMMARY OF WORK DONE IN THE DISPENSARIES DURING 1934.

Dispensaries.	*Patients.*		*Certificate of causes of death.*	*Patients sent to Hospital.*	*Patients removed to Hospital by Ambulance.*	*Corpses removed to Hospital or Mortuary.*	*Applications for coffins.*	*Dead infants brought to Dispensary.*	*Vaccinations.*	*Gynaecological Cases seen by Lady Doctor.*	
	New cases.	*Old cases.*								*New cases.*	*Old cases.*
Central	25,998	25,871	20	2	—	32	22	29	3,781	257	391
Eastern.	14,532	13,140	9	3	17	31	31	216	4,288	549	615
Western	17,193	14,554	21	21	15	354	354	328	4,909	—	—
Shaukiwan	25,484	40,027	13	61	1	6	6	193	7,316	817	964
Aberdeen	7,714	6,475	—	47	4	—	—	—	991	271	252
Yaumati & Harbour.	41,845	35,742	41	93	24	174	—	172	9,638	1,400	1,376
Shamshuipo	25,456	13,060	4	32	—	279	—	268	12,778	877	1,334
Hung Hom	12,690	3,030	61	109	9	157	—	155	6,200	325	269
Kowloon City	17,973	8,033	68	54	6	110	—	110	4,382	234	327
Total for 1934.....	188,885	159,932	237	422	66	1,143	413	1,471	54,283	4,730	5,528
Total for 1933.....	165,661	126,716	322	568	95	1,136	414	1,415	61,728	9,659	

SECTION VII.

Prisons.

422. The principal prison in the Colony is Victoria Gaol where there is accommodation for 650 males. At Lai Chi Kok on the Kowloon side of the Harbour is the Lai Chi Kok Prison where there is accommodation for 640 males. The Female Prison is situated near to the Lai Chi Kok Prison and has accommodation for more than 100.

423. All male prisoners are admitted to Victoria Gaol where they are carefully examined by the Medical Officer. Some, including all who are not passed as medically fit remain in Victoria, others are transferred to Lai Chi Kok. Female prisoners go direct to the Female Prison.

424. The total number of admissions to all prisons was 13,304, of which 11,382 were males and 1,922 females. Of these 1,346 were fifty years of age or over.

425. In Victoria Gaol there is a small hospital of 30 beds. At the Lai Chi Kok Prison there are 12 beds for non-serious cases, serious cases are transferred to Victoria Gaol Hospital. The Female Prison has 9 beds for sick cases.

426. For cases which require special treatment there are prison wards in the Government Civil Hospital and in the Kowloon Hospital.

427. 49 cases were transferred to the Government Civil Hospital (18 for X-ray examination) and 6 to the Kowloon Hospital (3 for X-ray examination) for treatment not available in the Prison Hospital, while 5 cases were transferred to the Mental Hospital.

428. There were 23 deaths amongst the male prisoners and 3 amongst the females. The causes of death were:—

Pulmonary Tuberculosis	10
Dysentery	3
Beri-beri	2
Cerebral haemorrhage	4
Tubercular meningitis	1
Lobar pneumonia	1
Valvular disease of the heart	1
Syphlitic Aortitis	2
Typhoid	2
	26

429. 11 male prisoners were released on medical grounds, 10 of whom were lepers, one female prisoner was released on account of pernicious anaemia.

430. During the year there were no executions.

REMAND HOME FOR JUVENILES.

431. The Belilios Reformatory, which for many years had been used for other purposes, was on the 20th November, 1933, re-occupied as a Remand Home for Juveniles.

432. There were 16 boys remaining in the home at the end of 1933 and 1,212 were admitted during the year, making a total of 1,228, of whom 39 remained at the end of 1934.

433. The Prison Medical Officer visits the home weekly and at other times, if required.

434. The general standard of health of the inmates was good. All boys were vaccinated on admission. 81 cases of minor injury and sickness were treated in the Home and 18 cases were sent to the Government Civil Hospital. Scabies, 27 cases, was the commonest ailment treated. The majority of the remaining cases were minor injuries and septic skin infections.

Prison.	Total Prisoners admitted.	Daily average No. of inmates.	Total admissions to Hospital.	Daily average No. of prisoners in hospital.	Total Out-patients.	Daily average number of out-patients.	Deaths due to disease.	Death rate *i.e.* % of deaths to total admissions to prison.
Victoria (Male)	11,382	839	948	23.94	16,052	53.68	20	0.17
Lai Chi Kok (Male)..	—	593	551	8.33	4,771	13.07	3	0.0026
Lai Chi Kok (Female)	1,922	178	146	6.15	3,719	10.19	3	0.0156

All male prisoners are admitted to Victoria Gaol in the first instance and no prisoner is transferred to Lai Chi Kok unless he is passed medically fit.

Serious cases from Lai Chi Kok are transferred to the Victoria Gaol Hospital for treatment.

SECTION VIII.

Meteorology.

435. Situated just within the northern limits of the tropics occupying an insular position immediately to the south of the great land mass of China, Hong Kong's climate is very materially influenced by the directions of the prevailing winds.

436. The North East Monsoon blows from November to May and during this period the weather is dry, cool and invigorating. From May until October, the season of the South West Monsoon, the air is highly charged with moisture and the climate is hot.

437. The mean annual temperature is 72°F. During the summer months the average maximum temperature is 87°F. and there is little difference throughout the twenty-four hours. Situated on the north side of the Island the City of Victoria gets all the heat and moisture of the South West Monsoon but not the breeze itself which is cut off by the mountain behind the town. During the winter months the range of temperature is from 70°F. to 45°F. with an average of 66°F.

438. The table on the following page gives the means or totals of the meteorological data for the several months of the year 1934. The data for this table were kindly supplied by the Director of the Royal Obsrvatory, Hong Kong.

METEOROLOGICAL DATA.

The following **Table I** gives the means, totals or extremes of the Meteorological Data for the several months of the year 1934.

Month.	*Barometer at M.S.L. Mean.*	*Temperature.*					*Humidity.*		*Cloudiness.*	*Sunshine.*	*Rain.*	*Wind.*	
		Absolute Max.	*Mean Max.*	*Mean.*	*Mean Min.*	*Absolute Min.*	*Rel.*	*Abs.*				*Direction.*	*Velocity.*
	ins.	°	°	°	°	°	*p.c.*	*ins.*	*p.c.*	*hours.*	*ins.*	*Points.*	*Miles p.h.*
January	30.21	69.1	61.1	55.9	52.3	42.8	70	0.32	66	144.8	0.470	NE/E	10.6
February	30.14	75.9	66.2	59.9	56.0	47.2	73	0.38	50	181.9	1.510	EN	12.4
March	30.03	82.2	68.9	63.5	59.4	49.8	78	0.47	75	119.9	1.745	E/N	8.9
April	29.98	84.8	72.8	68.1	64.9	55.0	85	0.59	94	54.2	2.445	E/N	10.9
May	29.84	90.1	81.3	76.7	73.8	65.9	81	0.75	81	139.0	8.735	E	13.7
June	29.83	90.5	86.0	81.0	77.1	74.0	86	0.90	83	140.1	25.105	S/E	9.8
July	29.75	93.1	87.0	82.0	78.7	72.6	86	0.94	81	183.2	19.425	ESE	11.2
August	29.80	91.5	84.9	80.6	76.9	72.8	88	0.92	68	181.9	24.360	E	11.4
September	29.80	92.5	87.0	82.0	77.7	72.1	81	0.88	57	221.9	10.720	E/N	12.1
October	30.02	85.4	79.2	74.5	70.6	62.9	74	0.64	68	159.1	2.205	ENE	16.2
November	30.09	83.0	75.0	69.7	65.8	57.7	77	0.56	69	142.7	0.410	ENE	10.3
December	30.15	**79.1**	69.2	63.4	59.6	43.2	75	0.45	53	173.9	0.535	ENE	13.0
Mean total or extreme	29.97	93.1	76.5	71.4	67.7	42.8	79	0.65	70	1,842.6	97.665	E/N	11.7

SECTION IX.

Scientific.

A.—BACTERIOLOGICAL INSTITUTE.

439. The activities of the Institute include:—

(*a*) the preparation of vaccine lymph.

(*b*) the preparation of anti-meningococcic serum.

(*c*) the preparation of bacterial vaccines.

(*d*) the preparation of anti-rabic vaccine.

(*e*) examination of pathological material.

(*f*) examination of waters, milks, etc., etc.

(*g*) medical research.

440. The Institute is under the charge of the Government Bacterioligist who is assisted by the Assistant Bacteriologist, one Chief Laboratory Assistant and five Laboratory Assistants.

441. Particulars of the work done during the year are contained in the Annual Report of the Bacteriologist which is appended.

B.—THE PUBLIC MORTUARIES.

442. There are two public mortuaries, one being situated in Victoria and the other in Kowloon.

443. At these places for the reception of the dead are received:—

(*a*) bodies from the Chinese Hospitals and Chinese Public Dispensaries for diagnosis.

(*b*) bodies forwarded by Convents which have received them either moribund or dead, from relatives and friends.

(*c*) dumped bodies, that is to say, bodies which have been taken from the place of death under cover of the night and dumped in the streets or in the harbour to save the trouble and expense of burial. The great majority of these cases have died a natural death and there is no need for concealment.

(*d*) bodies sent by the Police for medico-legal examination.

(*e*) bodies sent by the Medical Officer of Health for examination for signs of infectious disease or for simple diagnosis.

444. In all cases where a diagnosis cannot otherwise be made a *sectio cadaveris* is performed.

445. All dead rats collected by the Sanitary Authorities are taken to the mortuaries for examination with regard to plague.

446. During the year both Mortuaries were in charge of Medical Officers who had been detailed for this work in addition to their other duties.

PUBLIC MORTUARY, VICTORIA.

447. Report on Post-mortem Examinations, 1934:—

Number of examinations performed	2,188
Male bodies examined	1,075
Female bodies examined	1,106
Sex unknown owing to advanced decomposition	7
Claimed bodies sent from hospitals, etc	147
Unclaimed bodies mostly abandoned	535
Bodies of infants sent from Italian Convent	1,506
Number of Chinese bodies examined	2,174
Number of Non-Chinese bodies examined	14

	Male.	*Female.*	*Total.*
Number of bodies under 2 years of age	741	971	1,712
Number of bodies over 2 years of age	329	135	464

Bodies were received from the following sources:—

Victoria	2,093
Shaukiwan District	64
Other Villages	31
Number of rats examined	94,072
Number found plague infected	Nil.

PUBLIC MORTUARY, KOWLOON.

448. Report on Post-mortem Examinations, 1934:—

Number of examinations performed	2,472
Male bodies examined	1,376
Female bodies examined	1,082
Bodies of unknown sex (indistinguishable)	14
Claimed bodies sent from Hospitals, etc.	1,025
Unclaimed bodies mostly abandoned	1,447
Number of Chinese bodies examined	2,460
Number of Non-Chinese bodies examined	12

	Male.	*Female.*	*Unknown.*	*Total.*
Number of bodies under 2 years of age	998	905	14	1,917
Number of bodies over 2 years of age	378	177	0	555

Bodies were received from the following sources:—

Kowloon District	2,280
Harbour Police	95
Elsewhere	97

Number of rats examined	83,863
Number found plague infected	Nil.

SECTION X.

THE NEW TERRITORIES.

Public Health and Sanitation.

449. The New Territories comprise the mainland between Kowloon and the Sham Chun River and a number of islands including Lantau which is larger than Hong Kong. The mainland is so indented by bays, harbours and coves that it may be said to consist of a number of irregular peninsulas many of which are almost islands. Both mainland and islands are of similar geological formation, being barren granite hills or mountains separated by fertile valleys.

450. For general administrative purposes the New Territories have been divided into two districts—North and South each under its District Officer. The Northern District which is chiefly mainland is approximately 200 square miles in extent. The Southern District has roughly 100 square miles of which 40 only are mainland, the rest being islands.

451. For the purposes of medical administration it has been found convenient to divide the Territories into a Western Medical District and an Eastern Medical District, the boundary line being the range which extends from North to South and which separates the waters running East from those going West or South.

452. The Western District includes the West Coast and the South Coast with the hinterlands stretching back to the hills. The circular road crosses the boundary at the 3rd mile and at the 32nd mile. The islands of Tsing, Lantau, Cheung Chau and Lamma form part of this district.

453. The Eastern District includes the whole of the East Coast with its hinterlands.

454. Each medical district has approximately 150 square miles.

455. With regard to population the only information available is that contained in the Census Report where the figures refer to police districts only. The populations of the various villages in those districts are not known. The following is taken from the 1931 Census Report:—

Western Medical District.

Police District.	*Population.*	
Mainland :—		
Tsun Wan	5,335	
Ping Shan	12,660	
Au Tau	12,877	
Lok Ma Chau	4,377	
	———	35,249
Islands :—		
Lantau	7,409	
Tung Chung	1,713	
Cheung Chau	5,477	
	———	14,599
		———
		49,848

Eastern Medical District.

Police District.	*Population.*	
Mainland :—		
Sha Tau Kok	8,941	
Sheung Shui	10,208	
Taipo	12,684	
Shatin	4,346	
Saikung	7,585	
	———	43,764
Islands :—		
Po Toi Group and Cheung Kwan O District	3,100	
	———	3,100
		———
		46,864

456. The population is grouped into villages which are situated mostly on the lower levels, viz., on the flats facing the sea or in the valleys leading up to and between the hills. Some of the villages are easy of access by rail or road but some are only reached after hours of walking and there are those which are only easily accessible by boat.

457. The rules and regulations governing village life are nowhere laid down in print but have been handed down from generation to generation. There are no heads of villages appointed by and responsible to Government, for the conduct of

village affairs, but there are "Village Elders" who are accepted as arbiters in petty disputes and who have acquired their position through age, experience, wealth or family rank. These elders have no executive power and are regarded by the villagers and by Government as advisers only.

458. From time to time co-operative efforts are made for the good of the community—some contributing money, some materials and some labour. In this way the paving of streets or paths, the construction of a bridge or the digging of a village well is brought about.

Public Health.

459. There are practically no public health laws in force in the rural areas of the New Territories. The Public Health and Buildings Ordinance of the Colony does not apply and there is no power to ensure notification, isolation or disinfection of disease cases. The Registration of Births and Deaths Ordinance was made applicable in 1911 but was until 1932 in most villages a dead letter. The vaccination Ordinance applies but there has never been any compulsory vaccination.

460. Figures for diseases incidence and for deaths during the years the New Territories have been under British jurisdiction are not available so that death rates and incident rates for particular diseases cannot be calculated. Such being the case the health conditions of the people can only be gauged by inspection and deduction.

461. Past reports of District Officers or of the Police make little mention of diseases or of deaths and the natural conclusion is that there was little out of the normal to note.

462. Enquiries made at the villages elicits little that can be called alarming. Some sick can be found but they are few compared with the number of healthy looking men, women and children one sees going about attending to their various occupations.

463. Near the hills there is a considerable amount of malaria but judging from the appearance of the people the number of chubby children and the lowness of the spleen rates the ravages of this disease are mild when compared with other tropical countries.

464. Abnormalities and accidents in connection with pregnancy and child birth must occur but from all accounts they are few in proportion to the numbers of normal cases.

465. Skin diseases there are, but judging from the returns of the dispensaries and travelling dispensary they are not very prevalent.

466. Trachoma varies with the village. In some it is common in others it is not.

467. With regard to Tuberculosis the population is mostly engaged in agriculture or fishing. The people as a whole live an open air life and Tuberculosis cases are not common.

468. Taking everything into consideration there is little evidence that the population of the New Territories is an unhealthy one.

The Medical Department's Organisation during 1934.

469. Under the scheme for medical expansion the New Territories were divided into Western and Eastern districts with headquarters respectively at Un Long and Taipo. Each district is in charge of a Chinese Medical Officer who is responsible to the Medical Officer of the New Territories.

470. The duties of the District Medical Officer include:—

(1) Supervision of the Government dispensaries in his district.
(2) Domiciliary visits to indigent cases too ill to attend the dispensary.
(3) Emergency calls for all classes.
(4) Accompanying the Travelling Dispensary three times a week visiting villages in the district.
(5) Reconnaissance and propaganda.
(6) Spleen surveys.
(7) Periodical visits to Police Stations.

471. The Shing Mun Dam area was constituted a special medical district in charge of a special Chinese Medical Officer responsible to the Medical Officer New Territories for general medical work and to the Malariologist for anti-malaria operations.

472. The Staff for the New Territories included:—

1 European M.O. resident in Kowloon.
1 Chinese M.O., 1 dresser and 1 midwife resident at the Government Dispensary at Un Long.
1 Chinese M.O., 1 dresser and 1 midwife resident at the Government Dispensary at Taipo.
1 First grade dresser attached to the Travelling Dispensary.
1 Midwife at Cheung Chau.
1 Nurse-midwife and 1 midwife at Lady Ho Tung Welfare Centre, Ku Tung.
1 Midwife at Sai Kung.
2 Midwives at Sham Tseng.
1 Midwife at Tai O.

473. There are fully equipped dispensaries at Un Long, Sham Tseng, Ku Tung, Tai O and Sai Kung.

474. The Government Motor Travelling Dispensary which has its own first grade dresser and which carried one or other of the Medical Officers during its peregrinations was on the roads six days a week, making bi-weekly or tri-weekly visits to all the roadside villages.

475. In addition there were at Shing Mun a full time resident Chinese Medical Officer and three dressers any of whom was available for an emergency.

476. Dr. K. H. Uttley, the Medical Officer in charge of New Territories, was absent on leave from February 3rd to September 30th during which time Dr. J. B. Mackie was in charge.

Malarial Survey.

477. A spleen rate survey of the school children of the New Territories, which was started in May 1933, was still in progress at the end of the year. Both the M.O. i/c. New Territories and the District Medical Officers were engaged in this work. It was noted that even in the districts where malaria was reputed to be most prevalent the spleen rate was low—much lower than had been expected considering the character of the country. Altogether 4,679 children were examined of whom 358 or 7.65 per cent had enlarged spleens. The highest rates were 41.4 per cent at Castle Peak; 34.7 per cent at Sai Kung and 11.2 per cent at Shatin.

478. Among 556 children palpated on the Islands of Lan Tau, Cheung Chau, and Ma Wan, 15 or 2.7 per cent had spleens large enough to be felt.

479. No opposition was experienced in spleen surveys, on the contrary the people showed considerable interest in the proceeding.

The Government Travelling Dispensary.

480. The Government Motor Travelling Dispensary was put on the road on the 16th of June 1932. At first it visited all the villages on the road side once or twice a week, later, on representations from the voluntary aid societies, it ceased to call at the villages where they had established centres. The usefulness of this well equipped dispensary was thus considerably curtailed for the societies established centres in all the principal villages easy of access and there remained only the smaller hamlets. A Medical Officer and a dresser accompanied it on its rounds. There was a fixed itinerary and time-table so that the people should know where and when to expect it.

481. On Mondays, Wednesdays and Fridays it visited the Western District from San Tin to Shing Mun inclusive. On Tuesdays, Thursdays and Saturdays it visited the Eastern District from Sha Tin to Sha Tau Kok and back to San Tin inclusive. In this way there was a minimum of mileage and overlapping and a maximum of hours of work in the villages.

482. The following table shows the results attained:—

Year	New Cases	Old Cases and Dressings	Total	Malaria Cases
1933.....	10,523	2,084	12,607	766
1934.....	5,526	2,753	8,279	636

The decrease in the number treated may be attributed to the opening of the Lady Ho Tung Welfare Centre and the Sham Tseng Dispensary.

Taipo Dispensary.

483. The following table shows the year's work compared with that of previous years:—

	1932.	*1933.*	*1934.*
New cases	3,390	4,926	5,581
Old cases.....	4,668	6,237	9,220
Vaccinations	1,345	2,065	2,538
Maternity cases	81	111	116

Un Long Dispensary.

484. The work done during the year was as follows:—

	1933.	*1934.*
New cases.....	3,192	4,130
Old cases	3,404	3,998
Vaccinations	821	1,417
Maternity cases	122	202

Sham Tseng Dispensary.

485. This dispensary, which had been built by Mr. Ruttonjee and presented to the Government last year, was formally opened on January 30th.

486. The resident staff consists of two nurse-midwives and an amah.

487. The M.O. i/c. New Territories (West) visits the Dispensary three times a week on his rounds with the Travelling Dispensary.

488. The following is a summary of the cases dealt with at the dispensary:—

New cases	1,549
Old cases	1,988
Vaccinations	123
Maternity cases	21

Lady Ho Tung Welfare Centre.

489. This Centre was opened on the 14th of May. The staff consists of one fully-qualified nurse-midwife, one midwife, an amah and a coolie. Lady Ho Tung also supplies a watchman. A daily visit is made by one of the District Medical Officers before he starts his round with the Travelling Dispensary.

490. This Centre, in addition to the staff above described, houses the Travelling Dispensary and its driver.

491. The following are the cases dealt with during the year at the Centre:—

New cases	1,323
Old cases	2,101
Maternity cases	33
Babies washed	425

Tai O Dispensary.

492. During the last two years, first the M.O. i/c. New Territories and then the A.M.O. i/c. New Territories (West) paid weekly visits to the village, travelling by the Import and Export Department's launch on Thursdays. About 30 to 40 patients were seen at each visit, the village elders kindly lending the village hall for the purpose. It was decided to open a Government Dispensary and station a nurse-midwife in the village, which was done on the 17th August. The premises consist of a two-storey house near the water-front in the most important part of the town. The upper storey forms the quarters for the midwife and the amah, the lower one is the waiting-room and examination room. The midwife is responsible for dressings and the administration of stock mixtures during the week.

493. The following is a summary of the work done at the dispensary during the year:—

New cases	1,614
Old cases	1,015
Vaccinations	684
Maternity cases	41

Sai Kung Dispensary.

494. Until about 18 months ago, the M.O. i/c. New Territories had been in the habit of visiting this village fortnightly to attend a small clinic. In June 1933 the St. John Ambulance Brigade decided to station a midwife there and have a Centre in the village. It proved too difficult for them to run it, owing to the distance by sea from Hong Kong, and they discontinued it this year. While the Brigade visited the village, Government ceased the fortnightly visits, but in August 1934 a Government Dispensary was opened in Sai Kung, staffed by a nurse-midwife and an amah. It consists of the lower floor of a two-storey building near the centre of the village, the front part being the waiting-room and examination room combined, and the back portion being the nurse's and amah's quarters.

495. The A.M.O. i/c. New Territories (East) makes a weekly visit by ferry and police launch.

496. Sai Kung is a very difficult village to reach, and the journey occupies the Medical Officer's whole day.

497. The following is a summary of the work at the dispensary since it was opened on July 30th:—

New cases	961
Old cases	1,333
Vaccinations	64
Maternity cases	40

Cheung Chau Dispensary.

498. The Government Medical Officer no longer visits the dispensary here, because the St. John Ambulance Brigade have opened a large new hospital on the Island.

Shing Mun Dam Construction Works.

499. The general health of the labour force employed on the construction of the Dam is shown in the following tables:—

Monthly Sickness Rate Table.

Month.	1933	Estimated Population	1934	Estimated Population
January	No returns	200	4.5 per cent	797
February	,,	390	2.9 ,, ,,	1,074
March	,,	460	3.6 ,, ,,	1,120
April	,,	600	3.4 ,, ,,	959
May.....	,,	655	2.4 ,, ,,	1,002
June	,,	775	2.7 ,, ,,	891
July.....	,,	700	4.0 ,, ,,	1,016
August	5.3 per cent	650	3.9 ,, ,,	1,492
September ...	3 2 ,, ,,	800	3.8 ,, ,,	1,761
October	4.2 ,, ,,	807	3 2 ,, ,,	1 893
November ...	6.1 ,, ,,	707	2 7 ,, ,,	1,921
December ...	5.8 ,, ,,	685	2.4 ,, ,,	1,816

Analysis of the Shing Mun Hospital Returns for 1934.

	January	February	March	April	May	June	July	August	Sept.	October	Nov.	Dec.
No. of malaria cases .	54	14	18	8	5	14	42	71	103	117	86	68
Cases other than malaria	288	147	283	256	192	162	335	438	519	479	384	316
Deaths from malaria.	...	...	...	...	...	...	...	...	1	1	...	2
Deaths from other causes	4	...	3	3	1	4	3	3	1	1	4	2
Admitted to S. M. Hospital	28	33	35	17	25	30	40	55	48	53	39	34
Admitted to other hospitals.....	12	8	7	5	3	2	3	5	3	3	8	6
Ratio of malaria to total disease	18.5	9.5	6.5	3.1	2.6	8.6	12.5	16.2	16.6	19.5	22.4	17.7
Ratio of malaria to the total population	6.2	1.2	1.6	0.8	0.5	1.5	4.2	4.8	5.9	6.1	4.5	3.7

New Territories Police Stations.

500. These have been inspected periodically by the M.O. i/c. Kowloon and New Territories, and, in addition, the A.M.O.'s visit them once a month.

501. Many of the Police Stations are screened and every man is provided with a mosquito net. Prophylactic quinine is issued and the living rooms are regularly sprayed with an insecticide in an endeavour to kill any adult mosquitoes which may be present. The men on night patrol are of course exposed to the bites of mosquitoes. A table showing the incidence of malaria amongst the whole police force will be found in Appendix B.

502. The experiment in the use of Quino-plasmoquine at Tsun Wan Police Station, which was started last year, has been continued, and compared with the incidence of malaria there in past years, it has justified itself. There were 8 cases of malaria reported there during the year, but it was not possible to be certain in all cases that the infection had been contracted at the station. Whether it is that there is less evasion when tablets are uesd than when the liquid form of quinine is used, I am not prepared to say, but the incidence of malaria at this station since the introduction of this prophylactic treatment has diminished.

W. B. A. MOORE,
Acting D.M.S.S.

APPENDIX A.

GOVERNMENT BACTERIOLOGICAL INSTITUTE.

Report for the year 1934.

By A. V. Greaves, M.B., (Tor.), M.C.P. & S., (Ont.), D.T.M., (Liverpool).

Introductory.

(1) *Administrative.*—Dr. A. V. Greaves was away on leave from January 31st to November 9th, the duties of Government Bacteriologist being performed in his absence by Dr. R. S. Begbie, Assistant Government Bacteriologist.

An addition was made to the technical staff during the year by the appointment of one new laboratory assistant. The technical staff now consists of the Government Bacteriologist, the Assistant Bacteriologist, one Chief Laboratory Assistant and five Laboratory Assistants.

(2) *Buildings and Equipment.*—No alterations to the buildings are to be recorded.

A new lymph grinding machine has been purchased and installed for use in the Vaccine Department. It replaces the old machine which was doing very poor work and was a source of anxiety to us, as it ground very slowly and inefficiently. The new one does beautiful work and is efficient and economical in operation.

A Ceylon press has been acquired for the purpose of the more efficient preparation of anti-rabic vaccine. This apparatus separates a great part of the supportive tissues from the actual brain parenchyma and enables a finer and "smoother" vaccine to be prepared. It also eliminates the long and tedious period of shaking which used to be the rule before.

(3) *Library.*—Additions to the library during the year are as follows:—

1. Histo-pathology of the Peripheral and Central Nervous Systems, Geo. B. Hassin, 1933.
2. The Laboratory Diagnosis of Acute Intestinal Infections, including the Principles and Practice of the Agglutination Test, Medical Research Council, 1921.

(4) *Publications.*—

"A New Microscope Adapter for the Hand Spectroscope", by A. V. Greaves, Journal of Laboratory and Clinical Medicine, Vol. XIX, No. 7, April, 1934.

(5) *Research.*—Owing to the absence of the writer on leave for the greater part of the year little is to be recorded under this head. The work on Flexner dysentery organisms continued as far as the collection and typing of strains was concerned.

Work on culture media for the growth of the Klebs-Loeffler bacillus continued. The medium which was devised last year was put through an extended trial in parallel with Loeffler's medium on all routine cultures. The results have been encouraging enough to warrant a continuance with a view to making the study more complete.

Commencing at the end of January all bloods forwarded for Widal tests were also subjected to clot culture for the typhoid group of organisms. The results for the year were interesting. 799 cultures were done; of these 209 gave a positive Widal with a negative culture, 39 gave both positive Widal and positive growth, while 9 gave negative Widals with positive growth. That is, in a series of 257 cases of Enteric fever 3.50% would have been missed had not a culture been made. This is a figure which cannot be neglected, and consequently all bloods forwarded us for diagnostic Widal test are now cultured in addition. The figure for positive growths would no doubt be larger still were it not for the fact that a great many specimens are received in the old fashioned tiny Widal tubes, which give such a small clot that the chances of growing organisms from it are definitely small. (The positive cultures from Widal tubes were actually 2% fewer than were obtained from test tubes).

Further material was collected for Professor Van Dyke of Peiping Union Medical College, who is pursuing his studies of pituitary glands. Professor Hoeppli, to whom clonorchis infested liver tissue has been sent for some time past has reported on his work in an article entitled "Histological Changes in the Liver of Sixty-six Chinese Infected with *Clonorchis Sinensis*" appearing in the Chinese Medical Journal, Vol. XLVII, 1933.

(6) *General.*—The necessity for increased room for work at the Institute does not become less as time goes on, and our present cramped condition leads to a more insistent demand than ever for increased space. As it seems more and more unlikely that new quarters will be built, our only hope for relief lies in some addition to our present building. How this is to be accomplished in our present geographical surroundings is something of a problem but it will have to be faced. As

things are at present it is impossible to prepare and handle vaccine lymph otherwise than in the open laboratory with clinical pathological investigations going on in close juxtaposition. I am particularly anxious that this should be altered, as my efforts to improve the methods of production are to some extent, at least, nullified by undesirable conditions connected with handling the material. In addition is the need for an animal operating room in which vaccine pulp may be removed from calves.

The summary of tests appended shows a large increase in the total number performed and gives some idea of the growth of the work of the Institute. A comparison of the figures for this year with those for 1930 is interesting. The total number of tests performed in 1930 is shown as 10,221 while this year's total is 22,271 and this despite the fact that the method of recording tests has been radically altered so that many procedures do not appear as separate tests in the present figures which helped to swell the total for 1930. Moreover more rigid standards of work, especially in the preparation of biological products, are being insisted on than ever before, all of which calls for increased effort on the part of the staff. It must be pointed out that this increased volume of work is being carried out in much diminished laboratory space.

The work of the staff is highly satisfactory as usual.

A. Protozoology and Helminthology.

(1) *Blood films for malaria.*—Two thousand three hundred and eight-six films were examined for the presence of malarial parasites.

Examination of Blood Films for Malaria.

Parasites.	European.	Indian.	Chinese.	Total.
Malignant Tertian.	22	6	364	392
Benign Tertian ...	24	9	208	241
Quartan	5	1	74	80
Unclassified	2	1	22	25
Double Infection..	1	—	18	19
Negative	316	50	1,263	1,629
Grand Total	370	67	1,949	2,386

(2) *Filaria.*—Twenty-three films were examined specifically for the presence of filaria. No positive findings are recorded.

(3) *Faeces.*—One thousand six hundred specimens of faeces were examined for the presence of intestinal parasites. The presence of the cellular exudate typical of bacillary dysentery was always looked for and reported when present.

Examination of Stools for Intestinal Parasites.

	European.	Indian.	Chinese.	Total.
Ascaris	25	1	46	72
Clonorchis	6	1	65	72
Trichiuris	18	1	32	51
Ankylostoma	1	4	24	29
Fasciolopsis buskii,	...	1	3	4
Multiple infestation.	4	2	70	76
E. histolytica.....	5	1	4	10
Negative	586	58	642	1,286
Grand Total ...	645	69	886	1,600

B. Serology.

(i) *Serological Reactions for Syphilis.*—Ten thousand and twenty-three sera were tested.

The reactions recorded were as follows:

Strong Positive	29%
Positive	8%
Weak Positive	7%
Doubtful	8%
Negative	48%

EXAMINATION OF BLOOD SERA FOR SYPHILIS.

	EUROPEAN.		INDIAN.		CHINESE.		Total.
	M.	*F.*	*M.*	*F.*	*M.*	*F.*	
Strong positive..	20	1	75	...	2,164	662	2,922
Positive	11	2	56	...	494	207	770
Weak positive...	5	2	50	...	488	165	710
Doubtful	12	2	91	...	510	148	763
Negative	177	47	372	5	2,686	1,571	4,858
Grand Total...	225	54	644	5	6,342	2,753	10,023

(2) *Agglutination tests.*—Eight hundred and fifty-five sera were tested for agglutination as follows :

AGGLUTINATION TESTS.

ORGANISMS.	EUROPEAN.		INDIAN.		CHINESE.		Total.
	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	
B. Typhosus ...	34	125	6	28	180	476	849
B. Para. A.....	1	158	1	33	4	652	
B. Para. B.....	...	159	...	34	1	655	
B. Para. C.....	...	...	...	...	...	...	...
B. Melitensis ...	...	3	...	...	...	...	3
B. Abortus	...	1	...	...	...	...	1
Weil Felix reaction	...	2	...	...	...	...	2
Grand Total ...	35	448	7	95	185	1,783	855

C.—Bacteriological Examinations.

(1) *Faeces.*—Culture was carried out on four hundred and eighty-eight stools for the presence of pathogenic organisms.

The results are not without interest. If the figures for this year are taken in conjunction with those for 1933 a group is obtained of a size worth statistical consideration. The stools shown under the heading "Typhoid Group" and "B. Cholerae" are excluded, the former representing specimens sent from convalescents, food handlers, etc. and the latter from cholera suspects. The remainder, 448 specimens, represent stools sent for examination from cases showing clinical symptoms of dysentery, the great majority with the typical cellular exudate. Of this group, 192 or 42.85% gave cultures of organisms of known pathogenicity as follows:

B. dysenteriae,	Flexner	79.68%
B ,,	Shiga	7.29%
B. ,,	Schmitz	13.02%

These figures may be reasonably taken to represent the incidence of the different types of bacillary infection met with in Hong Kong. The total percentage of positive results obtained, namely 42.85% is high when it is noted that the stools are received in a condition far from fresh.

Stools Examined for Organisms.

Organisms.	European.		Indian.		Chinese.		Total.
	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	
Typhoid group..	4	16	...	1	7	183	211
B. Dysenteriae (Group).....	...	65	...	5	...	80	150
B. Dysenteriae (Flexner).....	20	...	3	...	75	...	98
B. Dysenteriae (Shiga).....	3	...	...	...	7	...	10
B, Dysenteriae (Schmitz).....	2	...	2	...	14	...	18
B. Cholera.....	...	...	...	...	...	1	1
Grand Total ...	29	81	5	6	103	264	488

(2) *Sputum.*—Six hundred and thirty-one specimens of sputum were examined for the presence of the tubercle bacillus.

Sputa Examined for Tuberculosis.

	European.	Indian.	Chinese.	Total.
Positive	12	17	128	157
Negative	73	76	325	474
Grand Total	85	93	453	631

(3) *Urine.*—Two hundred and seventy-two urines were examined. While chemical and microscopic report was made on the majority, a good number were cultured for organisms as well.

(4) *Urethral and cervical smears.*—Five hundred and ninety-four smears were examined for the presence of the gonococcus.

(5) *Nasal scrapings.*—Seventy-nine smears were examined for the presence of b. leprae. Twenty-two were positive.

(6) *Throat swabs.*—Cultural examination was carried out on seven hundred and twelve swabs for C. diphtheriae.

Throat Swabs Examined for Diphtheria.

	European.	Indian.	Chinese.	Total.
Positive	40	3	102	145
Negative	303	5	259	567
Grand Total	343	8	361	712

(7) *Cerebro-spinal fluids.*—Three hundred and eight spinal fluids were examined for the presence of the meningococcus.

C. S. F. Examined for Meningococci.

	European.	Indian.	Chinese.	Total.
Positive	3	2	158	163
Negative	16	2	127	145
Grand Total	19	4	285	308

(8) *Miscellaneous materials.*—Three hundred and two examinations were made under this head.

D.—Preparation of Vaccine Lymph.

Results in this department are as follwos:—

Number of calves scraped for pulp		116
Amount of lymph prepared		19,500 c.c.
,, ,, ,,	issued	13,270 ,,
,, ,, ,,	in stock at end of year	34.500 ,,

Although the number of calves used is less than last year, the amount of vaccine prepared is greater. This is the result of continued effort at improving the yield of pulp per calf and thus lowering the cost of production. The appended table shows the steady success which has been attained in this effort.

Date.	No. of Calves scraped for pulp.	Total pulp collected.	Average yield per Calf.
1931	83	2,163 gms.	26.06 gms.
1932	122	4,160 ,,	34.09 ,,
1933	148	5,787 ,,	39.10 ,,
1934	116	5,816 ,,	50.14 ,,

When the writer was on leave during the year the opportunity was seized to study the methods of vaccine production pursued by the Connaught Laboratories of the University of Toronto. Much of interest was learned and it is hoped to adopt some of their methods. A trial in a small way at the close of the year was most encouraging. Especially is it hoped to be able to utilize cow-calves instead of buffalo-calves, which are expensive and must be imported. Reference has been made in a previous paragraph to the necessity for an operating room in which the calves may be vaccinated and scraped. The present method of working in the open yard is a most undesirable procedure.

The new lymph grinder is a most successful piece of apparatus; it performs as much work in two hours as the old machine did in about as many days. Rapid grinding taken in conjunction with greatly improved yield per calf removes the necessity of our keeping such large stocks of lymph as we have in the past. This will result in fresher lymph with less likelihood of loss of potency through age.

E.—Preparation of Vaccines and Sera.

(1) *Anti-meningococcus serum.*—Owing to the continued steady demand for serum it was found necessary to purchase a supply from a proprietary house in order to supplement our own. This event was foreshadowed in last year's annual report as it was quite evident that the wider use of serum in the Colony and the larger dosage being employed would outrun our production. From the middle of the year another pony was added to our stock and has been used for the production of serum since. It is hoped that in future the supply will be more nearly capable of taking care of the demand.

The amount of serum issued from our own stocks was 14,050 c.c.

(2) *Gonococcus vaccine.*—The amount issued was 5,580 c.c. This is again heavily in excess of any previous annual production.

(3) *Anti-rabic vaccine.*—Owing to an outbreak of canine rabies in the New Territories during the summer the demand for anti-rabic vaccine was heavy.

The total number of cases treated was 403, and the total number of doses issued 4,369, constituting a record which we hope will not soon again be reached. Sixty-four brains were examined for the presence of Negri bodies and of these fourteen were positive.

Race incidence of cases.	Treatment completed.	Treatment not completed
Chinese	108	142
British	54	37
Portuguese	13	6
Indian	5	3
Japanese	4	3
Filipino	3	...
Russian	2	...
Danish	2	...
Norwegian	2	...
Spanish	1	...
Swiss	1	...
Eurasian	...	1
Unknown (outport cases)	16	...
Total	211	192

(4) *Autogenous vaccines.*—Thirty-three vaccines were prepared from materials forwarded for the purpose.

Vaccine and Serum.	Amount Issued.
Gonococcus Vaccine	5,580 c.c.
T. A. B. „	671 „
Cholera „	30 „
Autogenous „	33 vaccines.
Anti-meningococcic serum	14,050 c.c.

F.—Examination of Water and Milk.

(1) *Bacteriological analysis of the public water supply.*—One thousand four hundred and eighty-six samples of water were examined for bacteriological purity. Daily samples were taken from the various water areas and the results reported to the Water Authority. The usual high standard of purity has been maintained.

The appended table shows the various sources from which the samples were obtained:—

Unfiltered raw water	107
Filtered raw water	107
Filtered and chlorinated water from service taps throughout the Colony.	1,155
Well water	21
Water from other than public supplies...	96
Total	1,486

(2) *Bacteriological analysis of milk.*—Three samples of fresh milk and three of condensed milk were examined and reported on.

G.—Medico-Legal Investigations.

Twenty-three examinations were carried out at the instance of the Department of Criminal Investigation, all for the detection of human blood.

H.—Morbid Histology.

Two hundred and eleven examinations of tissues were made. Eighty-one of these were of tumours, thirty-six malignant and forty-five benign. The remainder were for general pathological diagnosis.

Analysis of Clinical and Other Examinations.

	Nature of Examination.	Total for 1933.	Total for 1934.
Agglutination Reaction.	B. Typhosus „ Paratyphosus A „ „ B	914	849
	„ „ C	1	...
	Weil Felix Reaction	1	2
	B. Dysenteriae	...	...
	„ Meletensis	3	3
	„ Abortus	4	1
	Serological Reaction for Syphilis	8,257	10,023
Blood Smears.	Malaria Parasites	1,990	2,386
	Filaria	14	23
	Blood count etc.,	25	72
Cultural Examinations.	Bacillus Diphtheria (Naso-pharyngeal swabs)	654	712
	Meningococcus (Spinal fluids)	274	308
	Typhosus, Paratyphosus, Cholera, etc., (Faeces)	300	488
	„ „ (Blood)	...	799
Faeces	Ova of helminth / E. histolytica	745	1,600
	Occult blood	23	27
	Tubercle Bacillus	2	5
	Tissue Sections	178	211
Miscellaneous Examinations.	Sputa	617	631
	Pus	39	50
	Urine	251	272
	Smear for Gonococcus	528	594
	Smear for B. lepræ	107	79
	Rat smears, spleen, etc., for B. pestis	1	...
	Animals for Rabies	25	64
	Medico-legal Examinations	34	23
	Bacteriological Examination of Milk	2	6
	Bacteriological Analysis of Water	1,323	1,486
	Rideal Walkers Test of Disinfectants	3	...
	Autogenous Vaccine prepared	29	33
	Filter candles sterilized for domestic filters	336	322
	Miscellaneous	238	302
	Total	16,918	22,271

Appendix B.

Annual Report of the Work of the Malaria Bureau for the Year 1934.

by

R. B. Jackson, M.D., D.P.H., Malariologist.

Staff.

The staff consisted of the Malariologist, Assistant to Malariologist, five Inspectors, one clerk and four coolies. The Assistant to Malariologist returned from leave and resumed duty on the 11th January.

2. The services of two vaccinators were placed at the disposal of the Bureau. They assisted in larval surveys, identification of larvae, collecting of mosqsitoes from habitations and in other work.

3. Work carried out throughout the year.

This was included under the following headings:—

(*a*) General mosquito survey of the Colony and New Territories, in order to determine what species existed, their life histories, and, as far as possible, their identifications in the larval and adult stages.

(*b*) A general investigation of malaria and other mosquito borne diseases.

(*c*) The catching of mosquitoes frequenting habitations, their identifications and the dissection of such Anophelines as were found, for malarial and filarial infections.

(*d*) Investigations as to the prevalence of malaria in certain areas and the conditions under which it was existing, with a view to its abolition, and, in the case of the Shing Mun Camp, the supervision of certain measures directed against Anopheline larvae and mosquitoes.

(*e*) Local mosquito surveys for the abatement of mosquito nuisances.

(*f*) The teaching of mosquitology, and the instruction of the Inspectors in this work and other matters bearing on the subject.

(*g*) Co-operation with Government Departments, the Military, Naval and Air Forces, public companies and private individuals, in the investigation and eradication of malaria.

(*a*) Investigation of Species & Their Life Histories.

Anophelines.

4. The number and species of the various Anopheline larvae examined are given in Table I. Table II gives the number and species of the imagines obtained from pupae collected, and from pupae obtained from the larger larvae.

5. *A. maculatus*. In addition to its usual breeding places in hill streams seepages and ditches, in the month of May the larvae were found in the sumps of the Aqueduct which runs into Aberdeen Reservoir. They were obtained in numbers from streams receiving the washings from cow byres and the drainage from manure dumps. A few were occasionally collected from fallow rice fields, and also from the water in rice cultivation in the months of October and November.

6. Malarial infections in midguts and salivary glands were met with in the adults dissected, and larval filaria were also encountered. A comparatively large number of adults were obtained from the Shing Mun Camp, and from the cow byres and pigsties at the village of Wo Li Hop.

7. Unsuccessful searches were made for these mosquitoes amidst boulders in streams and hollows in the banks.

8. *A. minimus*. From observations made on various streams, it would appear that in some, the larvae can be found throughout the seasons unless soon after heavy downpours. In other streams they were not found during the five months May-September and in some of these they were present only in small numbers, but in the remainder, towards the beginning and end of the year, they were almost as numerous as the larvae of *A. maculatus*. They were also met with in streams polluted by the drainage from cow byres. They were sometimes found in fallow rice fields, and sometimes in rice cultivation during October and November.

9. As in previous years this Anopheline was found to be an important carrier of malaria, and harboured larval filaria.

10. *A. hyrcanus*. The larvae were obtained in small numbers in collections made in rice fields at Shek O during the period June-September. A marked increase took place in November previous to the cutting of the second crop, they were numerous in collections made in November and December from pools in the rice stubble. Numbers were collected from fallow rice fields in various surveys.

11. Malarial infections were met with in this mosquito also larval filaria.

12. *A. jeyporiensis.* As in 1933 the larvae were found in flooded rice fields which had gone out of cultivation, in cultivated rice fields in October and November, and sometimes in pools amongst the rice stubble.

13. It was found to be an important carrier of malaria and to harbour larval filaria as in previous years.

14. *A. karwari, A. aitkenii* var. *bengalensis, A. splendidus.* Larvae of these were infrequently met with, a few adults of *A. karwari* and *A. splendidus* were captured. In the case of *A. splendidus*, two midgut infections were recorded from the Shing Mun captures and one instance of infection with larval filaria.

15. No larvae of *A. tesselatus* were collected and no adults captured.

16. Specimens of larvae and imagines were received from Dr. Toumanoff. Specimens were forwarded to Professor Gater, Singapore, for use in connection with the courses of Instruction held there under the auspices of the League of Nations, also to Dr. Toumanoff, to Captain Trimble, R.A.M.C., and to Dr. Dunscombe, Shanghai.

17. Dissections mounted on slides were given to Dr. Scharff, Senior Health Officer, Penang, and to Dr. Barnes of U. S. Public Health Service, Hong Kong.

Precipitin Tests.

18. Blood from midguts of Anophelines captured at Shing Mun, Wo Li Hop, and Little Hong Kong, were sent to Dr. Toumanoff, Pasteur Institut, Saigon for examination and report. The results are given in Table III.

19. At Shing Mun, where there are no cattle, 89% of the mosquitoes were positive for human blood. Goats are kept at times by the Indian Police.

20. At Wo Li Hop 83% of the Anophelines were positive for cattle blood. There are no cattle at Little Hong Kong.

21. It is hoped to send more material to Dr. Toumanoff who is making an extensive study of this subject, and also of the maxillary index of Anophelines, the results of which will be published by him later.

Culicines.

22. In addition to *C. mimeticus* and *C. mimulus*, another species of spotted wing Culex was met with and referred to Dr. Edwards of the British Museum who is of the opinion that it is a new one.

23. Whilst making outdoor searches for Anopheline mosquitoes, a *Uranotaenia* was captured, and sent to Dr. Edwards. He is describing it as a new species.

24. Larval skins and the corresponding imagines of Culicine identified as *C. fuscocephalus*, *C.* (*L*) *shebbeari*, *C.* (*L*) *infantulus*, *C.* (*L*) *rubithoracis*, *C. malayi*, and *Tripteriodes vicina* have been obtained.

25. Under low powers of the microscope the thorax of *C.* (*L*) *rubithoracis* is seen to have a distinctive shagreened appearance.

26. Larval and adult specimens were received from Dr. Stephen Hu, Lester Institute, Shanghai, and from Dr. Ling, Nanking; various specimens were sent from time to time to the British Museum.

27. Living mosquitoes and larvae of *C. fatigans* were taken to Dr. S. Hu, Shanghai, from the Bureau by Dr. Dunscombe, to be used for experimental purposes.

28. 3306 *C. fatigans* were dissected for Avian malaria, and for filaria infections. These mosquitoes were obtained from village huts and contractors' matsheds whilst searching for Anophelines. The only infection found was a larval filaria; the mosquito was obtained from the Wong Chok Hang area from whence Anophelines have been found with such infections from time to time.

(*b*) *Malaria.*

29. The following anophelines were found infected:—*A. minimus*, *A. jeyporiensis*, *A. hyrcanus*, *A. maculatus*, and *A. splendidus*.

30. The infected *A. hyrcanus* were obtained from the Shing Mun and Little Hong Kong catches, the *A. maculatus* from the Shing Mun and Wo Li Hop catches, the *A. splendidus* from Shing Mun.

31. Statistics for 1934 obtained from the M.O.H. show that 365 deaths were ascribed to malaria in the Colony and the New Territories, this being 1.85% of the total deaths. The death rate per thousand for malaria is given as 0.39.

32. In areas where the masses of the population reside, extensive training of hill streams has been carried out, and in consequence, as a rule, there are no facilities for the breeding of Anophelines, but where such exist as in suburban and rural areas on the Island and Mainland, the possibility of malaria must always be borne in mind.

33. Certain hill streams seem to occasion little if any malaria and a study of these might give valuable information for purposes of prevention in rural areas.

34. Examples of such streams are those crossing the Island Road; from its junction with Sassoon Road to Pokfulam village; the streams which flow from the Peak Hotel to Pokfulam Reservoir, from the War Memorial Hospital to Aberdeen and from Aberdeen Reservoir to the sea.

35. Malaria carrying mosquitoes have been found to breed in abandoned rice fields in hilly country; and during the last quarter of the year in rice cultivations whilst the irrigation water is draining off.

36. In Table IV, figures are given, regarding admissions, supplied by the following Hospitals: Government Civil, Kowloon, Victoria, Victoria Gaol, Laichikok Gaols (male and female), Tung Wah, Tung Wah Eastern, Kwong Wah, Matilda, Alice Memorial, War Memorial, Ho Mui Ling, and Yeung Wo. The malaria admissions are arranged according to the quarters of the year and to methods of diagnosis.

37. As malaria is not a notifiable disease rates cannot be given for the general population. Clinical diagnosis is not a satisfactory one.

38. One case of blackwater fever was reported.

39. In Table V statistics are shown of cases treated, supplied by the following Dispensaries:—Tai Po, Un Long, Kowloon City, Sham Shui Po, Yaumati, Hunghom, Western Public, Shaukiwan, Aberdeen, Central and Eastern.

40. Table VI deals with Hospital admissions of Government servants (excluding coolies) in relation to admissions for malaria.

41. Table VII is a similar table for Police, including Water Police. Certain stations are situated in areas where malaria is not likely to be contracted, others in rural areas where night patrol work adds to the risk of infection.

42. Table VIII gives the results of examinations for malaria of blood films which were made from prisoners admitted to Virtoria Gaol. The results are arranged in districts according to addresses supplied. The parasites are not classified as in the great majority of positive findings the diagnosis could only be made from the thick films and could not be established from the

thin films owing to the scantiness of the infections. The films were obtained through the co-operation of the M.O. Gaol and his staff and were stained and examined in the Laboratory of the Bureau.

43. Records obtained from the R.A.M.C. authorities regarding incidence of malarial infection amongst the troops, British and Indian, are as follows (relapses not being taken into account):

British troops:—number of cases of malaria contracted during the year was 57, of which 11 occurred in the first quarter, 4 in the second quarter, 17 in the third quarter, 25 in the fourth quarter. In the first quarter, 6 of the cases were amongst troops who had been in Camp, in the fourth quarter, 16. Calculated on an average strength of 3540, the yearly admission rate for fresh cases was 16.10 per thousand.

44. Amongst the Indian troops there were 29 fresh cases, of which there were none in the first quarter, 7 in the second, 11 in the third, 11 in the fourth quarter. These admissions work out for the year as 19.6 per thousand on an average strength of 1480.

Dengue.

45. According to returns received 3 cases were admitted to Government hospitals during 1934. No specimens of *Aedes aegypti* were met with, but *Aedes albopictus* was frequently encountered.

Filaria.

46. Four cases of disease due to filarial infection were reported from Government Hospitals during the year. Mosquitoes obtained from Wo Li Hop, Shing Mun, Little Hong Kong were dissected and examined for larval filaria. The results are shown in Table XIX. Two instances of double infection (malaria and filaria) were encountered, one was an *A. maculatus* from Shing Mun, the other an *A. minimus* from Little Hong Kong.

47. A larval filaria was found entangled in the trachae on the midgut of an *A. hyrcanus*; on staining with dilute Giemsa no differences could be made out, (apart from the absence of a sheath) between it and *W. bancrofti* obtained from thick blood films.

48. Table IX gives findings obtained from examinations for microfilaria of thick films made from prisoners admitted to Victoria Gaol. These films were taken in the daytime for examination for malaria parasites.

49. Specimens of *Microfilaria malaya* were received from Dr. Y. T. Yao, Department of Parasitology, Nanking, and from Dr. Stephen Hu, Lester Institute, Shanghai.

(*c*) The Catching and Dissecting of Anophelines for Malarial Infection.

(1) *Wong Chok Hang Village and Surroundings (Little Hong Kong).*

50. Catching operations were continued throughout the year. The locality is surrounded by hills on all sides except in the direction of the sea. A stream with several branches flows through it. A ravine which was formerly a rice swamp drains into the main stream. At the end of 1933 most of this swamp was ditched and divided into rectangular plots for growing crops such as Indian corn, three or four small plots, however, were left for rice growing and rice was also planted in such of the ditches as held water. The people of the village live in houses built of stone and roofed with tiles; the others in huts made of bamboo and thatch. All of them are engaged in growing crops and rearing pigs. The pigsties have low walls and high roofs, and so are unsuitable as daytime resting places for mosquitoes.

51. In 1931 a high spleen rate was found amongst the children and in 1932 a microfilaria rate of 12% was obtained from the examination of 106 persons, the blood being taken at night.

52. The arrangements for catching were as follows: a coolie collected for one hour, from dusk onwards, in the tent provided, and made another collection at dawn. He was supplied with camp bed, mosquito net, alarm clock and electric torch. This arrangement, judging from results obtained in 1933, appeared to offer the best prospects for securing *A. maculatus*. Unfortunately in August the tent was found unfit for further service and so night catching was discontinued.

53. Culicines not readily obtainable were captured in the night catches:—*Aedes niveus*, *M.* (*M*) *uniformis*, *M.* (*C*) *crassipes*. The blood of the coolie was examined monthly for microfilaria and for malaria parasites, but none were found, however two of the members of his family who resided in the neighbourhood suffered from malaria.

54. From 8.30 a.m. till 11.30 a.m., daily catching was done by the coolie in two groups of huts on alternate days. The groups were situated north and south of Island Road, the northern group along the stream banks, close to places where *A. minimus* larvae were in abundance, the southern group about 440 yards down stream where the larvae of *A. minimus* were scarce.

55. 2443 *A. minimus* were collected in 168 morning catches in the northern group or 14.54 per morning, 359 were collected in 136 mornings from the southern group or 2.64 per morning, about 1/5 of the catch obtained from the northern group. It would thus appear that habitations closest to the breeding places receive most attention from this Anopheline. Table X gives the

results of night catching, Table XI of morning catching. Day checking catches were done from time to time by an Inspector.

56. Table XII gives the results of dissections for malarial infection. The infection rate for *A. minimus* was low in the first half of the year in comparison with the second half as is usually the case. The rate for the year was also low, 2.32% in comparison with 5.50% for 1933, and 5.63% for 1932.

57. Of the few *A. hyrcanus* caught one was found infected in October, with one oocyst 46.μ. in diameter with fine yellowish pigment grains arranged in a clump.

(2) *Shing Mun Camp.*

58. By the end of 1933 anti-larval measures were in force over an area within half a mile distance from the Camp. Measures directed against *A. jeyporiensis* larvae had been taken along the Shing Mun and its tributaries from Pineapple Pass to P.W.D. Dam, and in the valley of stream A5 as far as the Access Road. The labourers were housed in permanent buildings. Nine additional lines were built during the year. From September 1933 attempts were made to render the lines mosquito proof. The average monthly population was 1286 as compared with 595 in 1933.

59. The daily mosquito catching was done by two coolies of the labour force who searched each line from end to end with the aid of an electric torch and brought the results to the Malaria Bureau.

The catches are indicated in Table XIII.

60. Of the important carriers of malaria *A. minimus* and *A. jeyporiensis*, 1033 and 5482 were captured in 355 morning searches as compared with 4644 and 25317 in 239 mornings in 1933. In July 1933, 5929 *A. jeyporiensis* were captured, more than the whole catch for 1934.

61. The catches of *A. minimus* increased considerably during the last quarter, those of *A. jeyporiensis* rose in May, continued high until November, then dropped in December. A considerable number of *A. maculatus* were taken especially from June onwards, the total catch being 1055 as compared with 277 in the previous year. *A. hyrcanus* was poorly represented in the June-September catches which results are interesting in view of those obtained from the investigations made into the larval density in the Shek O rice fields. Like *A. maculatus* it usually leaves the building after feeding but in this instance both species were trapped by the mosquito gauze.

62. The records of dissections for malaria are given in Table XIV. The infection rates of *A. minimus*, *A. jeyporiensis*, *A. maculatus*, *A. hyrcanus* were 2.97%, 3.58%, 1.11%, .27% respectively. In 1933 they were 12.48%, 9.93%, 3.48%, 1.21%.

63. Two instances of salivary gland infection were met with in *A. maculatus*, one of these had a filarial infection as well. No salivary gland infections were found in *A. hyrcanus*, as in the previous year its infection rate was low. *A. splendidus* was twice found infected on both occasions in the midgut, in one instance there were 15 oocysts present, average size 10 μ., in the other case 12 oocysts were counted, average size 40 μ. Pigment was yellowish in colour and arranged in clumps in both instances. So far as the Malariologist is aware, the only previous record of the infection of this Anopheline is that mentioned in the Indian Medical Research Memoirs No. 7, July, 1927, where it is stated that it was found infected by Robertson (1910) at Saharanpur.

64. Larval filaria resembling those found in other Anophelines were encountered in one instance in *A. splendidus*. There were two worms, both were found in the thorax one a long motile form, the other an intermediate form..

(3) *Wo Li Hop.*

65. This village consists of 26 human habitations. These are built of stone and roofed with tiles. The population is about 126. Cows and pigs are kept, in some instances cows are kept in a room in the dwelling house, in others in the same shelter as the pigs, and in others the shelters are occupied only by pigs. In all these animal shelters there is little light and ventilation, and the great majority of the Anophelines were obtained from them. Out of 577 *A. minimus*, 1242 *A. jeyporiensis*, 602 *A. maculatus*, 152 *A. hyrcanus*, 5 *A. splendidus* captured; 530 *A. minimus*, 1035 *A. jeyporiensis*, 530 *A. maculatus*, 148 *A. hyrcanus*, 5 *A. splendidus* were obtained from the animal shelters.

66. As the map indicates Wo Li Hop is situated north of the Access Road to the Shing Mun Camp, on hilly ground sloping from Tai Mo Shan ridge seawards. It is over half a mile from the Camp. Several hill streams flow down from the ridge.

67. Table XVII gives details as regards the catches. Owing to the anti-malarial operations done for the protection of the Camp, the number of Anophelines per morning's catch was considerably less than last year. In 1933, 5748 were obtained in 40 morning catches, or 143 per morning; in 1934, 2578 were got in 91 mornings or 28 per morning. A comparatively large number of *A. maculatus* were captured, mainly from the animal shelters.

68. The Inspectors when collecting took thick and thin blood films from any sick person found in the village. Of nine bloods examined, malarial parasites were found in five. At various times coolies employed at the Camp resided in Wo Li Hop. The results of the dissections for malaria are given in Table XVIII.

(*d*) Investigations as to Prevalence of Malaria in certain Areas.

(1) *Shing Mun. Investigation and Prevention.*

69. It will be seen on reference to the map that the Camp is situated 500 feet above sea level on ground which slopes southwards from Tai Mo Shan ridge to Gin Drinkers' Bay; east of the Camp is the Shing Mun River. The Gorge where the Dam is being constructed is half a mile distant. The Shing Mun river rises east of Tai Mo Shan, flows south to Pineapple Pass and afterwards turns east to Tidal Cove at Shatin.

70. Flowing south from Tai Mo Shan is a large stream A, with numerous branches which lie on all sides of the Camp. The streams are rocky bedded and boulder strewn, the boulders being of all sizes and shapes, in places the grade of the stream is steep in other places flat. Sometimes the course leads through deep gorges. In some of the valleys, rice fields arranged in terraces have been constructed by building a series of stone walls arross them in order to retain the soil thrown down, the stream being usually diverted to one side and used as an irrigation channel, in other instances the water for irrigation is derived from seepages which drain into ditches.

71. The nearest human habitation to the Camp is the village of Wo Li Hop which is half a mile distant as the crow flies.

72. There are no human habitations in the upper reaches of the Shing Mun, the villagers having migrated, and flooded fallow rice fields were formerly a feature of the tributaries of the stream from Pineapple Pass upwards.

73. At the end of 1933 there were two sets of permanent coolie lines, situated at the heads of streams A3 and A6. In 1934 an additional set of four permanent lines was built on the spur overlooking A3, and occupied in May. Another set of five lines was built on the same spur and occupied in September.

74. The population varied from 712 in the month of January to 1894 in December, the average monthly labour force being 1286 as compared with 595 in 1933.

75. Anti-larval measures within an area of half a mile radius from the Camp, as represented on the map by a circle of 4″ radius were completed by the end of 1933 and extended along the valley of A5 as far as the Access Road. Anti-malarial measures directed against *A. jeyporiensis* were in operation from Pineapple Pass to the P.W.D. Dam; namely, drainage of the fallow rice fields formerly flooded; early in 1934 these operations were extended as far as the village of Ho Pui.

76. Of these measures, in 1933, works of a permanent nature were done in the rice swamps (indicated in shading) and in the upper parts of streams A3 and A6 within the 2″ circle, and, along stream A3a outside this limit. Drainage pipes and rubble surmounted by concrete drains were placed in the narrow rocky bedded streams C, D, and E. Engineering work was done on that portion of the ravine which runs from Pineapple Pass to Wo Li Hop, and such breeding places of *A. jeyporiensis* as lay between Pineapple Pass and the P.W.D. Dam along the Shing Mun and its tributaries.

77. The remaining streams and rice fields in the area under treatment, were dealt with by temporary measures. Clearing was done in the streams and the water oiled; drainage in the fallow rice fields, and oiling of these drains within the half mile circle.

78. In 1934 an anti-malarial gang of ten coolies oiled and kept clear the streams, and made such ditches as were necessary. A mixture of 1% Paris Green with Green Island Cement dust was used on breeding places in wet cultivation north of the Access Road. This work was supervised by the Resident Medical Officer assisted by two anti-malarial Inspectors who resided on the spot. Blood films were taken, stained, examined and reported upon by them and when time permitted minor larval surveys were done and searches for fresh breeding places were made.

79. In 1933 over 33000 Anophelines had been captured in the coolie lines, 75% of the catch being *A. jeyporiensis* which had an infection rate of 10% in over 10000 dissections, hence this Anopheline was considered to be of primary importance. The larvae had been found in fallow rice fields so that a special lookout was kept for such breeding places.

80. Early in the year surveys were done in the streams around the matsheds occupied by the coolies of the Wolfram Mining Camp, the site of which is indicated on the map, east of the Shing Mun river. The larvae taken were nearly all *A. maculatus*; no flooded rice fields were then found in the vicinity nor later in the year when the *A. jeyporiensis* catch in the Camp had gone up considerably.

81. In 14 morning catches done at Wolfram Camp matsheds during the second half of the year only eleven Anophelines were captured, however two of these were found to be infected. At the end of the year about 350 labourers resided in this Camp.

82. On the Eastern bank of the Shing Mun searches were made from the neighbourhood of the village of Ho Pui to the swampy ravine at the head of stream A2 east of the Aqueduct, but no breeding grounds of *A. jeyporiensis* were met with.

83. As to the swampy ravine at the head of A2, the vegetation is dense, and in places there is a rusty coloured precipitate in the water. Larval surveys were done but few or no larvae were found and this at times when the Camp catch was high. This ravine does not seem to be the source of the *A. jeyporiensis* trouble.

84. During the period March, April, May, June, larval surveys were done in the fallow rice fields in the upper reaches of the Shing Mun beyond Ho Pui—the limit of the controlled area in this direction. Many of these were found dry, some were found flooded with no larvae, from a few small number of larvae *A. jeyporiensis* and *A. hyrcanus* were obtained. As *A. hyrcanus* was being captured in the Camp catches in fair numbers at that time, it did not appear as if the supply were coming from these sources.

85. The ground north of Wo Li Hop was also investigated. Nothing of importance was found until the rains set in, when a few wet grassy fields were met with. These were drained by ditching.

86. A watch was kept upon fallow fields along the banks of stream A. north of the Access Road. During the rains these were found flooded and from some of them larvae of *A. jeyporiensis* were collected. Drainage was done.

87. More fallow fields were found in the fork of A5 north of the Access Road, and to the west of these as far as the head of Ravine B. All were drained as well as the head of B. which was ascertained to be a fertile source of *A. jeyporiensis* at times.

88. Towards the end of the year attention was paid to the fallow rice fields on the banks of stream A1a. It will be seen from the map that there are several Chinese villages much nearer these breeding places than the Camp, and which one would expect would be more attractive to the mosquitoes on that account. The direction of the local prevailing wind may have a bearing on this matter.

89. The monthly *A. jeyporiensis* catches until July were insignificant in comparison with the corresponding catches in 1933, but in May four new lines were occupied on the spur overlooking the head of stream A3 and in September five more, thus extending the Camp in the direction of A1a.

90. Collections were made during seven mornings in November in these fallow fields and about 5000 larvae obtained. 53% of these were *A. jeyporiensis*, the remainder being mainly *A. hyrcanus*. This breeding ground is being kept under observation in order to determine what action should be taken regarding it.

91. Towards the end of October 1933, larval surveys were done in two sets of terraced rice fields before the cutting of the second crop and whilst the water was being drained off. From one set 102 larvae were collected, 76 of which were *A. hyrcanus*, 26 *A. jeyporiensis*. From the other set 763 larvae were obtained, 70% of which were *A. hyrcanus*, 18% *A. minimus*, 12% *A. jeyporiensis*.

92. In 1934 further investigations were made from the middle of September to 8th November in various rice cultivations. The areas searched were the fields north of the Access Road, between stream A. and the head of B, those in the valley through which stream A4 flows and which has at its head the village of Sheung Kwai Chung, and rice fields along the banks of A1, A2, A3 and their branches. One survey was done in September and larvae of *A. hyrcanus* were found, but in small numbers. In October and November the results varied.

93. In one place only larvae of *A. hyrcanus* were found, in other places the percentage of *A. jeyporiensis* varied from 2% of the collection to 40%. In some of the collections the percentage of *A. minimus* was low, in others it formed 10% and in one it was 30%. The area A2e was surveyed on the 2nd November, *A. jeyporiensis* formed 2% of a collection of 200 larvae. A2f a short distance from A2e was searched on the 6th November yet *A. jeyporiensis* formed 40% of a collection of 519. The larvae of *A. jeyporiensis* were obtained in small numbers from the rice cultivation as compared with the numbers which could have been got in the same time from the fallow fields in A1a, A2f being an exception. The rice fields investigated were mostly irrigated by ditches from hill streams, such could soon be dried after the cutting of the second crop, and so did not furnish breeding pools in the rice stubble.

94. The Malariologist paid 36 visits during the year, the Assistant to Malariologist 75. Five Inspectors made 71, 55, 32, 27, 12 visits respectively. In addition a laboratory coolie helped in the larval collections as well as the two Vaccinators.

95. The visits were made for the purposes of larval surveying, searching for fresh breeding places, checking of oiling measures, inspecting fallow rice fields which had been drained and the upkeep of this drainage, checking local catches, inspecting areas dealt with by engineering work.

96. The Anti-malarial and Hospital staff were housed in mosquito proofed quarters, none of them contracted malaria.

97. Twenty-four Europeans resided in mosquito proof quarters, two suffered from malaria, one of whom had had an attack in the previous year.

Of the five Indian police stationed at Shing Mun, three suffered from malaria and were treated there, neither of the two Chinese contracted the disease.

98. Table XV gives the estimated population of the Labour Force, month by month, its distribution according to race, the number of cases treated due to malaria and to all causes, also the results of examination of blood films for malaria. The figures have been supplied by the Resident Medical Officer.

99. The malaria case rate was high in January; dropped from February onwards but rose again in July, and remained at a comparatively high level for the remainder of the year.

100. From July onwards the *A. jeyporiensis* catches increased considerably, and those of *A. minimus* from October onwards.

101. Table XVI gives the monthly malaria case rates for the years 1933 and 1934 and the annual malaria case rates for 1933 and 1934. It will be seen that the annual rates for 1934 is one quarter that for 1933.

(2) *Site of New Government Civil Hospital (at junction of Islands and Sassoon Roads).*

102. Mosquito catches were made in the four matsheds which housed about 425 labourers employed on levelling the site of this Hospital. From January until June it was only considered necessary to make monthly visits, after June weekly visits were paid as incidence of malaria is usually higher from that time onwards. The Inspector engaged in the catching took thick and thin films of any persons found sick in the matsheds. In the course of 30 visits, only three Anophelines (*A. minimus*) were caught, and these in November and December. Four blood films were taken, no parasites were found in them and no infection was found in the mosquitoes.

103. Several surveys have been done within the circle of half mile radius from the site, from 1931 onwards. Larvae of *A. maculatus* have always been found in abundance but few larvae of *A. minimus*, except when the surveys were done in the colder months, when they were found in comparatively large numbers in a small sector of the circle in the neighbourhood of Mount Davis Road. In this small sector 19 out of 26 children or 73% examined in 1931 had enlarged spleens.

104. In the remaining sector of the half mile circle 124 children were examined, three or 2.4% had enlarged spleens, this sector contains numerous cattle and pigs the property of the Dairy Farm Co.

105 Larval surveys were continued in two streams A. and B. north and south of Mount Davis Road between fixed limits, and as far as possible all the larvae present were collected. In 1933 larvae had been collected from A. between Conduit and Forestry Paths about every two months. Larvae of *A. maculatus* were always found but in February 65 *A. maculatus* and 4 *A. minimus* were obtained.

106. In 1934 monthly collections were made; in January 35 *A. maculatus*, 2 *A. minimus* were obtained; in February 32 *A. maculatus*, 1 *A. minimus;* no more larvae of *A. minimus* were met with until December when 120 *A. maculatus* and 5 *A. minimus* were collected.

107. As to stream B larvae had been collected the previous year from the portion between Island and Victoria Roads about every two months. These collections were repeated at monthly intervals in 1934. In 1933 *A. minimus* had been found in high percentages during the cold months and the same results were obtained in 1934. Thus in January 40 *A. maculatus*, 25 *A. minimus* were collected, in February 67 *A. maculatus*, 10 *A. minimus*, no more larvae of *A. minimus* were met with until October when 130 *A. maculatus* and 3 *A. minimus* were obtained; in November 280 *A. maculatus*, 119 *A. minimus*, in December 128 *A. maculatus*, 108 *A. minimus*.

108. No complaints of malaria were received from the residents of the neighbourhood during the year.

(3) *Pokfulam Village.*

109. The villagers mostly live in huts made of bamboos and thatch. The village is situated on flat ground east of Island Road. Behind, or east of the village the ground rises sharply towards the Peak, in front or west of the village it falls abruptly to the sea. The flat portions of the streams in the neighbourhood of the village are trained. In 1931, 50 children were examined, 2 or 4% had enlarged spleens.

110. Mosquito catching was done one morning each month until June, after that two visits were made monthly. The most likely huts for *A. minimus* were always searched, namely, those nearest the untrained hill streams. In 19 mornings only two *A. minimus* and one *A. maculatus* were obtained. *C. fatigans* was well represented in the catches.

111. Three streams run into the valley in which the village is situated, one is an overflow from Pokfulam Reservoir which finds its way into a concrete channel. Above the Reservoir the main stream which commences below the Peak Hotel, was searched in July and only larvae of *A. maculatus* were found. In November 36% of the collection of 385 larvae was *A. minimus* the majority of which were obtained near the Reservoir.

112. As to the other two streams, in larval surveys made during the last quarter of the year *A. minimus* was obtained in small numbers only from them. There are several cattle byres in the vicinity of the village

(4) *Aberdeen.*

113. This village is situated on the south coast of the Island and is surrounded on all sides by hilly ground except in the direction of the sea. Three streams flow down from the hills. One commences below the War Memorial Hospital and discharges into the Aqueduct which runs into the Aberdeen Reservoir; below the Aqueduct it resumes its course between Mount Kellett and the Aberdeen Chinese Cemetery. This stream is about half a mile from Aberdeen Market. In July a collection was made in the upper portion between the War Memorial Hospital and the Aqueduct, and only larvae of *A. maculatus* were found.

114. In August the portion between the Aqueduct and the sea was searched and only larvae of *A. maculatus* were obtained. In September larvae only of *A. maculatus* were found between the Aqueduct and the sea. In November searches were made in the portions both above and below the Aqueduct, larvae of *A. maculatus* and a few *A. minimus* were found in each.

115. Market gardeners, residing in huts, live along the lower portion of this stream.

116. Another stream flows past the Aberdeen Market. It is trained, also its branches.

117. The third stream continues from Aberdeen Reservoir and flows into the sea, close by St. Louis Industrial School. A good many boulders have been removed from the bed. In September a few *A. maculatus* larvae were found, in December out of about 400 larvae collected 7% were *A. minimus*.

118. No complaints have been received of malaria from Aberdeen.

(5) *Repulse Bay.*

Contractors' Matsheds, Beach Road.

119. About 166 labourers engaged on making this road were housed in two matsheds. A hill stream flows southwards from Island Road to the sea, beneath Beach Road. A visit was made in August; no Anophelines were caught in the matsheds, no sick were found in the lines and no Anopheline larvae were found in the stream. Another visit was made in September, 1 *A. minimus* and 1 *A. maculatus* were caught in the matsheds, 23 *A. maculatus* and 1 *A. minimus* larvae were collected from the

stream. Monthly visits were paid in October, November, December, in October out of 86 larvae collected from the stream, 60 were *A. minimus*, the remainder being *A. maculatus*. In November 211 were *A. minimus* out of 266 collected; in December 318 out of 341. A total of 59 *A. minimus* and 1 *A. maculatus* adults were captured in the matsheds.

120. Of 51 *A. minimus* dissected, 2 were found infected. Six blood films were taken from sick persons in the lines during October and November, two of these had malarial infections.

(6) *Shek O Rice Fields.*

121. Collections of larvae were made from rice fields at Shek O which were irrigated by water seeping from a hill foot. The results are expressed as the number of larvae which could be collected by one man in one hour. As far as possible the same collectors were employed, the day of collection being as near the middle of the month as circumstances would allow. In June the number was 2, in July 2, in September 12, in October 10, early in November 49 whilst the rice was still uncut; in mid November 106 after the rice had been cut, at the end of November 159, in December 150.

122. The larvae collected were all *A. hyrcanus* until the mid November collection when about 5% were *A. jeyporiensis*. At the end of November there were 3% *A. jeyporiensis* in the collection and 1.5% in December.

123. At Wong Chok Hang in November 1932, larvae of *A. jeyporiensis* were found in abundance in pools amongst the rice stubble as well as those of *A. hyrcanus*, apparently rice fields differ as to suitability for *A. jeyporiensis* breeding just as streams do in regard to *A. minimus*.

124. It is worthy of note that the larval catch of *A. hyrcanus* was low in the months June, July, August, September when the catch of adults at Shing Mun Camp was also low.

(7) *Streams below Shek O Club.*

125. Two collections were made, one in April, one in July from the stream below Shek O Club between the junction of the Road to the Club and the Road to New Shek O Village. This portion receives the effluent from three septic tanks, rushes grow in it, the flow is sluggish, and the mouth is usually obstructed by a sand bar. In the April survey the larvae of *A. hyrcanus* were found in abundance, in July only one was collected.

(8) *Taikoo Sanatorium.*

126. In December 1932, 16 larvae of *A. maculatus* and 19 of *A. minimus* were found in a brick and cement tank, 6 feet square near the site of the former Taikoo Sanatorium. The tank was fed by a seepage trickling from the rocks, and overflowed into a concrete channel. The site is approximately 1200 feet above sea level, one mile as the crow flies from the nearest habitation. No one had been living there since 1930. During 1933 the tank was inspected monthly excepting the months of February, May, September. No Anopheline larvae were collected until November when 28 *A. maculatus* were found. In December 15 *A. maculatus* and 1 larva of *A. minimus* were collected. In 1934 monthly collections were made except during the months January, February, June, July; but only larvae of *C. bitaeniorhynchus* were found.

(9) *Tai Hang Road Matsheds.*

127. Mosquito catches were made once a month in the first half of the year and more often in the second half. The matsheds were sited close to Tai Hang, an eastern suburb of Victoria. One set was situated on the spur above the road, overlooking the untrained portion of the Tai Hang nullah. In these catching took place on 24 mornings. No Anophelines were caught. Another set of matsheds were situated in the nullah, by the roadside. In 19 morning searches, 4 *A. minimus* were obtained, 2 in September, 2 in December. None were found infected. No labourers were found sick in either set of lines during the visits although about 102 were employed.

128. The untrained portion of the nullah between Tai Hang Road and Sir Cecil's Ride was surveyed monthly, larvae of *A. maculatus* were found and occasionally a few *A. hyrcanus.*

(10) *Tung Wah Matsheds.*

129. These were occupied by contractor's labourers, about 44 in number who were engaged in the training of a nullah between Tai Hang Road and Sir Cecil's Ride. By the end of the year the training was almost completed. Visits once a month were made during the period January-June, after that more frequent visits were made. In 24 morning searches 4 Anophelines were captured, two being *A. minimus* the other two being *A. jeyporiensis*, three of these were captured in January, one in March. No sick were found in the lines.

(11) *Wong Nei Chong Village.*

130. This hamlet is situated near Blue Pool Road south east of Happy Valley. Mosquito catching was done on 19 mornings, monthly visits being made during the period January-June. No Anophelines were taken, but *C. fatigans* figured largely in the

catches. In November and December 4 *A. minimus* were caught in 3 morning searches in a matshed occupied by contractors' coolies. No sick were reported in the course of these visits. A larval survey was done in September in the main stream in the valley above the village. Larvae of *A. maculatus* only were collected.

(12) *Middle Gap Road and Coombe Road.*

131. A case of malaria was reported from each of these Roads. In May a survey was done in the stream flowing across Middle Gap and Mount Cameron Roads between R.B.L. 336 and R.B.L. 337. Only larvae of *A. maculatus* were found. In December the survey was repeated, in order to ascertain if *A. minimus* larvae were present in numbers, but only a few were obtained, in addition to those of *A. maculatus*. In August thick and thin blood films were obtained from 91 servants living in Magazine Gap Road, Coombe Road, Mount Cameron Road and Middle Gap Road; malarial parasites were found in one of these only.

(13) *Kai Tak Matsheds.*

132. Four visits were paid during March-June at monthly intervals to a matshed within the Airport occupied by 10 labourers. 1 *A. minimus* was obtained. Seven visits were paid to a matshed just outside the Airport which housed about 150 labourers, during the months January-June. 3 *A. minimus*, 2 *A. jeyporiensis*, 1 *A. maculatus*, 2 *A. hyrcanus* were captured. None of these mosquitoes were found infected and no sick labourers were met with.

(14) *Tsun Wan Village.*

133. The neighbouring police station has a high malaria sick rate. Mosquito catches were made in the village houses, cow byres, and pigsties in September and October. In 5 mornings, 76 *A. minimus*, 50 *A. jeyporiensis*, 7 *A. maculatus*, 1 *A. hyrcanus* were obtained. Of 72 *A. minimus* dissected, 4 were found infected. Of 44 *A. jeyporiensis* dissected 2 infections were found. No infections were found in the 7 *A. maculatus*.

134. Three blood films were taken from the villagers in the course of the visits, one contained parasites.

(15) *Hume Pipe Company site, 10½ miles, Castle Peak Road.*

135. This site was visited in November and December, investigations made and a report submitted upon the findings.

(16) *Proposed site of Military Cantonments at Kowloon Tong.*

136. Inspections were made in September and October, larval surveys done in December in the streams east of the road to Shatin Pass: a report was submitted.

(*e*) Mosquito Nuisance.

137. The usual plague of mosquitoes, due to *C. fatigans* occurred in the Mount Kellett area on the Peak, from the advent of the warm weather until the beginning of the rains. Breeding places were found on the Peak itself, but below Matilda Hospital, a hill stream was found by the Malariologist to be polluted by drainage from manure dumps; and from the contaminated pools, larvae of *C. fatigans* were collected in abundance, whilst above the pollution none were obtained. The rains set in shortly after the finding of these breeding places and although larvae of *A. maculatus* could be collected from them, no larvae of *C. fatigans* were obtained, the current being perhaps too strong or the pollution too weak. Later in the year larvae of both *A. maculatus* and of *A. minimus* were met with in the polluted water. Arrangements have been made for the oiling of the *C. fatigans* breeding places by Sanitary Department coolies.

138. At the Dairy Farm, Pokfulam, the septic tank has been mosquito proofed, the stream into which the effluent discharges and in whose pools larvae of *C. fatigans* were found in enormous numbers has been "rough" trained as far as Victoria Road, by the Assistant to Malariologist who is superintending the oiling of it, as well as the oiling of the stream below Matilda Hospital.

139. Larvae of *C. fatigans* have been found on occasions in the sumps receiving the drainage from the cow byres of the Dairy Farm.

140. *C. fatigans* mosquitoes were captured in large numbers at the Fanling Government Bungalow. Their larvae were found in the septic tank on the premises and also in a septic tank at the Fanling Golf Club. Recommendations were made for dealing with these places.

141. Visits were paid to the Jockey Club stables, Shek O, Coombe Road, Broadwood Road, Sassoon Road, and Repulse Bay, in connection with complaints made by householders. At the Jockey Club quarters the nuisance was caused by *C. fatigans* which bred in the effluent discharged from the stable drains, at Shek O it was caused by *Aedes togoi* which breeds in rock pools near the sea, at Coombe Road by *Aedes albopictus* whose larvae were found in great numbers in an ancient and miscellaneous collection of tins and crockery, amongst the undergrowth in the ravine at the junction of Coombe Road and New Aberdeen Road, at Broadwood Road the trouble was caused *C. fatigans* and *Aedes albopictus* which were breeding in discarded receptacles on the hill side above Blue Pool Road, at Sassoon Road by the same species whose larvae were found without difficulty in the village of Tai How Wan, and at Repulse Bay by *Aedes albopictus* whose larvae were found in concrete pits, and by *Aedes togoi*.

(*f*) Instruction of Inspectors and Teaching of Mosquitology.

142. The instruction of the Inspectors was continued throughout the year.

143. A high standard of efficiency has been maintained by them both in Laboratory and Field work. Dissections showing Ross' black spores in salivary glands and in midguts, stained midguts infected with oocysts and stained larval filaria, were prepared by them, for exhibition at the Far Eastern Congress of Tropical Medicine held in Nanking.

144. Demonstrations in collecting mosquito larvae, and in capturing the adults were given to a class of R.A.M.C. men.

145. Classes of instruction for probationer Sanitary Inspectors were continued from the previous year; towards the end of the year classes were held for students of the Hong Kong University.

(*g*) Co-operation with Other Departments and Private Individuals.

146. From time to time visits were paid to the P.W.D. drainage works in progress at Tung Wah Eastern Hospital, Taikoo Dockyard, Lyemun Barracks, Stanley Peninsula, the former Military Sanatorium site Magazine Gap, and at Kowloon Tong.

147. The training of the important portion of an *A. minimus* breeding stream adjacent to Kent Road Kowloon Tong which was commenced in September 1933 was completed by the end of 1934. In 1932, 23 cases of malaria were notified from this neighbourhood, in 1933, 19 cases were notified, in 1934 only 1 case.

148. Special visits were made with the Drainage Engineer to Pokfulam area, to Kowloon Tong and to Po Kong, and with the Acting M.O.H. and Chief Sanitary Inspector to Pokfulam. Drainage at Kings Park was inspected with the Assistant M.O.H.

149. The surroundings of No. 27 Deep Water Bay, and of the Hume Pipe Company Castle Peak Road were inspected.

150. Mosquito larvae and adults were identified for the Military Authorities and for the M.O.H. Anophelines captured at the Military Camps and sent to the Laboratory were dissected and reports furnished.

151. A paper on the Anophelines of the Colony was prepared and read at the meeting of the Far Eastern Congress of Tropical Medicine held in October at Nanking.

Table I.

Anopheline Larvae examined microscopically during 1934.

Month	A. maculatus	A. minimus	A. hyrcanus	A. jeyporiensis	A. karwari	A. aitkeni	A. splendidus	Total
January	131	42	355	139	10	17	—	694
February	617	337	535	144	—	25	—	1,658
March	269	19	6	34	—	—	—	328
April	391	12	872	34	—	—	—	1,309
May	462	30	22	—	—	—	—	514
June	1,067	475	214	17	—	—	—	1,773
July	2,086	208	183	—	1	20	31	2,529
August	338	6	489	12	—	—	—	845
September	1,018	35	230	30	31	—	—	1,344
October	1,095	438	2,102	409	35	—	—	4,079
November	2,730	1,279	4,549	3,032	44	69	—	11,703
December	4,103	1,155	1,185	42	—	8	—	6,493
Totals	14,307	4,036	10,742	3,893	121	139	31	33,269

Table II.

Adult Mosquitoes hatched out from large larvae and pupae during 1934.

Month	A. maculatus	A. minimus	A. hyrcanus	A. jeyporiensis	A. karwari	A aitkeni	A. splendidus	Total
January	94	73	59	52	8	7	3	296
February	159	35	34	36	—	—	—	264
March	29	1	1	7	—	1	—	39
April	68	2	104	—	—	—	—	174
May	116	4	6	—	—	—	—	126
June	119	99	16	—	3	—	—	237
July	303	66	26	—	—	—	—	395
August	48	—	98	—	—	—	—	146
September	163	6	32	6	10	—	—	217
October	102	34	109	25	11	—	3	284
November	341	170	211	212	9	—	1	944
December	566	234	124	26	—	—	—	950
Totals	2,108	724	820	364	41	8	7	4,072

Table III.

Result of Precipitin Tests made by M. Toumanoff of the Pasteur Institute, Saigon, on blood taken from Anopheles captured at Shing Mun.

Espèces	Nombre d'examens	Résulatats positifs	Réactions positives au sérum de					Observations
			Homme	bétail	Porc	Chien	Mixte	
			Village de Shing-Mun. (1)					
A. hyrcanus var sinensis.	67	47	43	...	...	3	1	Hom. + ch. = 1
A. jeyporiensis.	37	21	19	...	...	1	...	
A. maculatus...	14	11	8	...	...	...	1	Hom. + ch. = 1
A. maculipalpis.	1	0	0	...	...	...	...	
A. minimus ...	18	8	8	...	...	...	...	
Total.....	137	87	78	...	...	4	2	
			Village de Wo-Li-Hop.					
A. hyrcanus var sinensis.	3	3	...	...	1	1	1	Hom. + bèt. = 1
A. jeyporiensis.	35	32	2	29	...	...	1	Hom. + bet. = 1
A. maculatus ...	32	31	2	25	2	...	1	Hom. + bet. = 1
A. minimus ...	28	26	3	23	...	...	...	
Total.....	98	92	7	77	3	1	3	
			Village de Little Hong Kong.					
A. jeyporiensis.	1	1	1	...	...	...	...	Hom. + ch. = 3
A. minimus ...	168	125	102	...	15	4	4	Hom. + porc = 1
Total.....	169	126	103	...	15	4	4	

(1) Une réaction de *A. jeyporiensis* et deux de *A. maculatus* provenant du village de Shing-Mun étaient positives avec le sérum anti chèvre.

Un *maculatus* de Wo-Li-Hop a été trouvé gorgé du sang de cheval.

Table IV.

HOSPITAL ADMISSIONS.

Nationality	*Govt. Civil* Admissions		*Kowloon* Admissions		*Victoria* Admissions		*Victoria Gaol* Admissions	
	All causes	Malaria	All causes	Malaria	All causes	Malaria	All causes	Malaria
Europeans	332	3	587	47	313	11	7	...
Indians	1,055	129	21	2	...	...	2	...
Chinese	3,440	55	1,665	88	12	1	916	22
Others	74	...	192	...	23	...	...	...

Nationality	*Lai Chi Kok Goal (M)* Admissions		*Lai Chi Kok Gaol (F)* Admissions		*Tung Wah* Admissions		*Tung Wah Eastern* Admissions	
	All causes	Malaria	All causes	Malaria	All causes	Malaria	All causes	Malaria
Europeans	...	...	...	...	...	...	...	...
Indians	...	...	...	...	...	...	...	...
Chinese	576	71	163	25	9,908	464	6,532	122
Others	...	...	...	...	...	...	...	...

Nationality	*Kwong Wah* Admissions		*Matilda* Admissions		*Alice Memorial* Admissions		*Ho Mui Ling* Admissions	
	All causes	Malaria	All causes	Malaria	All causes	Malaria	All causes	Malaria
Europeans	...	...	257	5	...	...	...	...
Indians	...	...	...	...	...	..	...	...
Chinese	12,891	253	...	...	800	11	413	21
Others	...	...	...	...	...	...	...	...

Nationality	*War Memorial* Admissions		*Yeung Wo* Admissions	
	All causes	Malaria	All causes	Malaria
Europeans	443	19	33	...
Indians	...	...	2	...
Chinese	5	...	1,380	33
Others	14	...	...	...

SUMMARY OF ADMISSIONS.

Nationality.	*All causes.*	*Cases of Malaria.*	*Percentage of admissions for Malaria.*
Europeans...	1,972	85	4.31
Indians	1,080	131	11.94
Chinese.....	38,701	1,176	3.03
Others	303	...	...
Totals.....	42,056	1,392	3.27

MALARIA ADMISSIONS.

During		*Diagnosed microscopically.*	*Diagnosed clinically.*
1st Quarter	220	787	612
2nd „	290		
3rd „	552		
4th „	320		
Totals...	1,382	787	612

Total admission to Government Hospitals (including Gaol) excluding Cachexia=457 cases.

Table V.

Dispensary Statistics.

Dispensaries.	Total cases treated.	Malaria cases treated.	Percentage of cases of Malaria treated to total cases.
Tai Po	14,801	1,071	10.22
Un Long	8,046	141	1.75
Western Public	17,193	754	4.39
Kowloon City	17,737	973	5.49
Sham Shui Po	25,456	917	3.60
Shaukiwan	25,484	512	2.01
Aberdeen	7,714	295	3.82
Central	25,998	15	0.06
Eastern	13,532	380	28.1
Yaumati	41,845	518	1.24
Hung Hom	12,690	453	3.57
Totals.....	210,496	6,029	2.86

Malaria cases treated.

During		*Diagnosed microscopically.*	*Diagnosed clinically.*
1st Quarter	1,005	1,554	4,475
2nd „	1,072		
3rd „	1,869		
4th „	2,083		
Totals.....	6,029	1,554	4,475

Table VI.

Government Employees and Malarial Admissions.

Nationality.	Average No. of employees.	Malarial Admissions.	Malarial Admissions per 1,000.
Europeans	864	20	23.14
Indians	1,086	122	112.33
Chinese	3,951	57	14.42
Others	89	...	...
Totals.....	5,990	199	33.22

Malarial admissions.

During		*Diagnosed microscopically.*	*Diagnosed clinically.*
1st Quarter	26	189	10
2nd „	51		
3rd „	77		
4th „	45		
Totals.....	199	189	10

Chapter VII.

Police Force and Malarial Admissions.

Stations.	Average Strength.	Malarial Admissions.
Central	501	20
Upper Levels	94	6
Gough Hill	35	...
Sai Ying Pun	97	3
Pokfulam	9	1
Aberdeen	21	1
Wanchai	109	1
Bay View	21	...
Shing Mun Sub Station	8	...
Shaukiwan	19	2
Stanley	10	...
Tai Tam Tuk	4	...
Quarry Bay	21	...
Yaumati	202	2
Sham Shui Po	64	8
Mongkok	52	3
Kowloon Water Works	3	...
Hung Hom	35	1
Kowloon City	56	7
Water Police	232	7
Tsim Sha Tsui	75	...
Tsun Wan	11	15
Cheung Chau	12	1
Tai O	20	...
Green Island	3	...
Police Training School	106	12
Au Tau	15	3
Castle Peak	10	...
Lok Ma Chau	13	...
Ping Shan	12	1
Sha Tin	10	1
Sai Kung	11	8
Sha Tau Kok	14	1
Sheung Shui	21	11
Tai Po	17	2
Tai Ku Ling	13	...
Lin Ma Hang	8	...
TOTALS	1,964	117

Summary of admissions.

Nationality.	Strength.	Malarial Admissions.	Malarial Admissions per 1,000.
Europeans.....	213	9	42.25
Indians	709	93	131.17
Chinese	1,042	15	14.40
Totals.....	1,964	117	59.57

Malaria admissions.

During		*Diagnosed microscopically.*	*Diagnosed clinically.*
1st Quarter	18		
2nd „	37	62	55
3rd „	38		
4th „	24		
Totals.....	117	62	55

Table VIII.

RESULTS OF EXAMINATION OF BLOOD FILMS (FOR MALARIAL PARASITES) TAKEN FROM PRISONERS ADMITTED TO VICTORIA GAOL.

District according to address supplied.	City of Victoria		Island of Hong Kong (excluding City of Victoria.)		Kowloon.		New Territories.		Total.	
Month.	Films		Films		Films		Films		Films	
	examined.	positive.	examined.	positive.	examined.	positive.	examined.	positive.	examined.	positive.
January	13	...	16	2	57	4	14	...	100	6
February.....	10	...	16	...	56	...	14	...	96	...
March	8	...	15	...	62	...	13	...	98	...
April	5	...	12	...	68	3	12	...	97	3
May	1	...	4	...	72	1	8	1	85	2
June	4	...	2	...	82	...	8	...	96	...
July.....	8	...	3	...	78	1	10	1	99	2
August	7	...	3	...	78	1	12	...	100	1
September ...	23	1	4	...	59	1	13	3	99	5
October	11	...	3	...	73	1	18	...	105	1
November ...	9	...	5	...	71	...	15	...	100	...
December ...	5	...	2	...	65	1	18	1	90	2
Yearly Totals.	104	1	85	2	821	13	155	6	1,165	22
Percentage ...	0.96		2.35		1.58		3.87		1.88	

Table IX.

RESULTS OF EXAMINATION OF BLOOD FILMS (FOR MICROFILARIA) TAKEN FROM PRISONERS ADMITTED TO VICTORIA GAOL.

District according to address supplied.	City of Victoria.		Island of Hong Kong (excluding City of Victoria).		Kowloon.		New Territories.		Total.	
Month.	Films		Films		Films		Films		Films	
	examined.	positive.	examined.	positive.	examined.	positive.	examined.	positive	examined	positive
January	13	1	16	1	57	...	14	...	100	2
February.....	10	...	16	...	56	...	14	1	96	1
March	8	...	15	...	62	...	13	...	98	...
April	5	...	12	...	68	...	12	...	97	...
May	1	...	4	...	72	...	8	...	85	...
June	4	...	2	...	82	...	8	...	96	...
July.....	8	...	3	...	78	3	10	...	99	3
August	7	...	3	1	78	8	12	...	100	9
September ...	23	1	4	...	59	...	13	...	99	1
October	11	...	3	...	73	1	18	...	105	1
November ...	9	...	5	...	71	1	15	...	100	1
December ...	5	...	2	...	65	...	18	...	90	...
Yearly Totals	104	2	85	2	821	13	155	1	1,165	18
Percentage ...	1.92		2.35		1.58		0.64		1.54	

Table X.

Results of Night Catches of Anophelines at Wong Chok Hang.
(Little Hong Kong).

Locality	Month during which catching took place.	No. of nights when catching took place.	SPECIES							
			A. Minimus		A. Jeyporiensis		A. Maculatus		A. Hyrcanus	
			M	F	M	F	M	F	M	F
Tent near Mr. Li's House.....	January.....	23	...	...	...	...	...	...	...	...
	February.....	18	...	...	...	...	...	3	...	...
	March	20	...	...	...	...	...	10	...	...
	April	20	...	4	...	...	...	13	...	4
	May	22	...	7	...	...	...	8	...	1
	June	21	...	12	...	...	...	30	...	1
	July.....	22	...	9	...	...	...	19	...	1
	August.....	5	...	3	...	...	...	...	...	...
	September	...	...	...	...	...	...	...	...	...
	October	...	...	...	...	...	...	...	...	...
	November	...	...	...	...	...	...	...	...	...
	December	...	...	...	...	...	...	...	...	...
Total.....		131	...	35	...	...	...	83	...	7

Table XI.

Results of Morning Catches of Anophelines at Wong Chok Hang Village and Surroundings. (Little Hong Kong).

Month during which catching took place.	No. of mornings when catching took place.	SPECIES.							
		A. Minimus.		A. Jeyporiensis.		A. Maculatus.		A. Hyrcanus.	
		M.	F.	M.	F.	M.	F.	M.	F.
January	26	8	87	...	6	...	2	...	...
February	22	2	95	...	1	...	1	...	...
March	25	6	121	...	6	...	2	...	3
April	25	40	265	...	1	...	...	...	2
May	26	77	402	...	1	...	...	...	2
June	26	59	451	...	...	...	1	1	7
July	25	66	393	...	...	...	1	...	1
August	27	39	159	...	...	...	1	...	...
September	25	24	144	...	...	...	...	...	1
October	26	19	163	...	21	...	2	...	3
November	26	61	349	...	9	...	3	...	2
December	25	19	173	...	13	1	...	...	8
Totals	304	420	2,802	...	58	1	13	1	29

Table XII.

Record of Dissections for Malarial Infection of Anophelines caught at Wong Chok Hang Village and Vicinity.

(Little Hong Kong).

Month	Species	No. of dissections	No. with infected glands only	No. with infected midgut only	No. with infected glands and midgut	Percentage of infection
January ...	A. minimus	83	...	... 1	...	1.20
	A. jeyporiensis ...	6	...	...	...	...
	A. maculatus.....	2	...	...	...	...
	A. hyrcanus	...	...	...	...	...
February...	A. minimus	91	...	...	...	...
	A. jeyporiensis....	1	...	...	...	...
	A. maculatus.....	4	...	...	...	...
	A. hyrcanus	...	...	...	...	...
March	A. minimus	114	...	...	...	...
	A. jeyporiensis ...	6	...	...	...	...
	A. maculatus.....	11	...	...	...	...
	A. hyrcanus	3	...	...	...	...
April	A. minimus	185	...	...	...	...
	A. jeyporiensis....	1	...	...	...	...
	A. maculatus.....	10	...	...	...	...
	A. hyrcanus	5	...	...	...	...
May	A. minimus	288	1	3	...	1.38
	A. jeyporiensis....	...	...	...	...	...
	A. maculatus.....	8	...	...	...	...
	A. hyrcanus	2	...	...	...	...
June	A. minimus	181	...	...	...	...
	A. jeyporiensis....	...	...	...	...	...
	A. maculatus.....	31	...	...	...	...
	A. hyrcanus	7	...	...	...	...
July	A. minimus	220	3	4	...	3.18
	A. jeyporiensis....	...	...	...	...	...
	A. maculatus.....	19	...	...	...	...
	A. hyrcanus	2	...	...	...	...
August	A. minimus	133	4	2	...	4.51
	A. jeyporiensis....	...	...	...	...	...
	A. maculatus.....	1	...	...	...	...
	A. hyrcanus	...	...	...	...	...
September..	A. minimus	130	3	3	2	6.15
	A. jeyporiensis....	...	...	...	...	...
	A. maculatus.....	...	...	...	...	...
	A. hyrcanus	1	...	...	...	...
October.....	A. minimus	145	1	2	1	2.76
	A. jeyporiensis....	21	...	...	...	...
	A. maculatus.....	2	...	...	...	...
	A. hyrcanus	3	...	1	...	33.33
November ..	A. minimus	294	6	3	1	3.40
	A. jeyporiensis....	9	...	...	...	...
	A. maculatus.....	3	...	...	...	...
	A. hyrcanus	1	...	...	...	..
December...	A. minimus	116	...	6	...	5.17
	A. jeyporiensis....	12	...	...	...	...
	A. maculatus.....	...	...	...	...	...
	A. hyrcanus	6	...	...	...	...
Totals	A. minimus	1,980	18	24	4	2.32
	A. jeyporiensis....	56	...	...	...	...
	A. maculatus.....	91	...	...	...	...
	A. hyrcanus	30	...	1	...	3.33

Table XIII.

Results of Morning Catches Shing Mun Camp.

Month during which catching took place.	No. of mornings when catching took place.	SPECIES.											
		A. minimus.		A. jeyporiensis.		A. maculatus.		A. hyrcanus.		A. splendidus.		A. karwari.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January	31	...	25	...	49	...	8	...	621	...	...	...	...
February.....	26	...	17	...	31	...	23	...	523	...	...	...	...
March.....	29	...	35	...	82	...	22	...	786	...	...	...	...
April	30	...	39	...	91	...	30	...	733	...	3	...	...
May	30	5	41	...	138	...	38	...	655	...	5	...	...
June	29	...	75	...	210	...	92	...	136	...	7	...	...
July.....	30	...	56	...	533	...	146	...	60	...	12	...	...
August	31	...	42	...	621	...	249	...	27	...	11	...	...
September	28	...	23	...	924	...	146	...	140	...	2	...	...
October	31	1	261	...	1,552	...	120	...	678	...	1	...	...
November.....	29	...	228	...	1,017	...	95	...	1,323	...	6	...	2
December	31	...	191	...	234		86		1,227		3		2
Totals.....	355	6	1,033	...	5,482	...	1,055	...	6,909	...	50	...	4

Table XIV.

Results of Dissections for Malarial Infection of Anophelines caught at the Shing Mun Camp.

Month	Species	No. of dissections	No. with infected glands only	No. with infected midgut only	No. with infected glands and midgut	Percentage of infection
January ...	A. minimus.....	22	...	...	...	...
	A. jeyporiensis....	44	...	...	...	...
	A. maculatus.....	8	...	...	...	...
	A. hyrcanus	521	...	...	...	...
	A. splendidus	...	...	...	...	...
February...	A. minimus.....	12	...	...	...	...
	A. jeyporiensis....	24	...	1	...	4.15
	A. maculatus.....	23	...	...	...	...
	A. hyrcanus	507	...	...	...	...
	A. splendidus	...	...	...	...	...
March	A. minimus.....	30	...	...	...	...
	A. jeyporiensis....	76	...	...	...	...
	A. maculatus.....	18	...	...	...	...
	A. hyrcanus	591	...	...	...	..
	A. splendidus	...	...	...	...	...
April	A. minimus.....	31	...	1	...	3.23
	A. jeyporiensis....	58	...	...	...	...
	A. maculatus.....	27	...	...	...	...
	A. hyrcanus	613	...	...	...	...
	A. splendidus	3	...	...	...	...
May	A. minimus.....	32	...	1	...	3.11
	A. jeyporiensis....	103	1	...	...	0.97
	A. maculatus.....	30	...	...	...	...
	A. hyrcanus	417	...	...	...	...
	A. splendidus	5	...	...	...	..
June	A. minimus...	51	...	...	...	...
	A. jeyporiensis....	168	1	2	...	1.84
	A. maculatus.....	84	...	1	...	1.14
	A. hyrcanus	97	...	...	...	...
	A. splendidus	7	...	...	...	...
July	A. minimus.....	34	1	1	...	5.88
	A. jeyporiensis....	459	6	9	1	3.59
	A. maculatus.....	136	1	2	...	2.16
	A. hyrcanus	49	...	2	...	4.07
	A. splendidus	12	...	...	...	...
August.....	A. minimus.....	23	1	...	...	4.35
	A. jeyporiensis....	488	9	12	1	4.51
	A. maculatus.....	198	...	3	...	1.52
	A. hyrcanus	19	...	...	...	...
	A. splendidus	10	...	...	...	...
September..	A. minimus.....	20	1	1	...	10.00
	A. jeyporiensis....	863	20	17	9	5.33
	A. maculatus.....	135	1	...	...	0.74
	A. hyrcanus	131	...	...	...	...
	A. splendidus	2	...	...	...	...
October.....	A. minimus.....	179	1	5	1	3.91
	A. jeyporiensis....	882	7	29	1	4.20
	A. maculatus.....	95	...	2	...	2.11
	A. hyrcanus	454	...	2	...	0.44
	A. splendidus	1	...	...	...	...
November..	A. minimus.....	192	2	3	...	2.60
	A. jeyporiensis....	833	7	11	2	2.16
	A. maculatus.....	78	...	...	...	...
	A. hyrcanus	1,050	...	4	...	0.38
	A. splendidus	5	...	2	...	40.00
	A. kawari	2	...	...	...	...
December...	A. minimus.....	149	1	2	1	2.67
	A. jeyporiensis....	168	1	2	...	1.79
	A. maculatus.....	68	...	...	...	...
	A. hyrcanus	796	...	6	...	0.75
	A. splendidus	3	...	...	...	...
	A. kawari	2	...	...	...	...
Total.....	A. minimus.....	775	7	14	2	2.97
	A. jeyporiensis....	4,166	52	83	14	3.58
	A. maculatus.....	900	2	8	...	1.11
	A. hyrcanus	5,245	...	14	...	0.27
	A. splendidus	48	...	2	...	4.17
	A. kawari	4	...	...	...	...

Table XV.

Sickness Returns for the Shing Mun Labour Force.

Month	Race.	Average Population.	Malaria Cases Diagnosed microscopically.	No. of cases of Sickness from all causes.	No. of Deaths.
January ...	Cantonese.....	505	31	166	3*
	Shanghai	257	22	171	...
	Indian	20	1	5	1*
	Totals	782	54	342	4
February .	Cantonese.....	671	6	79	3*
	Shanghai	367	8	79	...
	Indian	19	...	3	...
	Totals	1,057	14	161	3
March.....	Cantonese	697	6	130	3*
	Shanghai.....	379	9	158	...
	Indian	20	1	8	...
	Totals	1,096	16	296	3
April	Cantonese.....	544	5	125	2
	Shanghai.....	369	3	135	...
	Indian.....	20	...	3	1*
	Totals	933	8	263	3
May.....	Cantonese.....	701	...	91	1*
	Shanghai.....	256	5	104	...
	Indian.....	19	...	2	..
	Totals	976	5	197	1
June	Cantonese.....	649	4	101	4*
	Shanghai.....	198	10	69	...
	Indian.....	18	...	5	...
	Totals	865	14	175	4
July.....	Cantonese...	670	10	152	3*
	Shanghai.....	302	31	220	...
	Indian.....	17	...	3	...
	Totals	989	41	375	3
August	Cantonese.....	973	24	219	...
	Shanghai.....	474	46	287	3*
	Indian.....	17	1	3	...
	Totals	1,464	71	509	3
September	Cantonese...	1,095	37	270	1*
	Shanghai.....	621	66	346	1†
	Indian	18	...	4	...
	Totals	1,734	103	620	2
October....	Cantonese.....	1,264	37	235	1
	Shanghai.....	584	78	357	1†
	Indian	18	1	2	...
	Totals	1,866	116	594	2
November.	Cantonese...	1,297	40	236	1*
	Shanghai..... ..	579	46	234	2*
	Indian.....	18	...	...	...
	Totals	1,894	86	470	3
December.	Cantonese.....	1,166	27	153	2*
	Shanghai	605	39	225	2†
	Indian	18	2	6	...
	Totals.....	1,779	68	384	4
	Totals		596	4,386	31* 4† =35

* Deaths due to other causes, † Deaths due to malaria.

Details of Examination of Blood Films for Malaria, Shing Mun.

Nationality	B. T.	M. T.	Q.	B. T. and M. T.	Type not classified	Totals
Cantonese	87	78	9	...	53	227
Shanghai	127	175	3	...	58	363
Indian	...	2	...	...	4	6
Totals	214	255	12	...	115	596

Table XVI.

Malaria Case Rate per 1000 Population, 1933 and 1934, Shing Mun Camp

Month.	1933.			1934.		
	Average population.	No. of malaria cases treated.	Case Rate per 1000 population.	Average population.	No. of malaria cases treated.	Case Rate per 1000 population.
January	—	—	—	782	54	69.1
February	390	1	2.6	1,057	14	13.2
March	460	7	15.2	1,096	16	14.5
April	600	4	6.7	933	8	8.5
May	650	40	61.5	976	5	5.1
June	765	83	108.5	865	14	16.2
July	690	171	247.8	989	41	41.5
August	640	177	276.6	1,464	71	48.5
September	790	188	237.9	1,734	103	59.4
October	797	195	244.7	1,866	116	62.1
November	692	166	239.9	1,894	86	45.4
December	671	64	95.4	1,779	68	38.2

1933.			1934.		
Average Monthly Population.	Total No. of malaria cases treated.	Case Rate per 1000 population.	Average monthly Population.	Total No. of malaria cases treated	Case rate per 1000 Population.
595	1,096	1,842	1,286	596	456

Table XVII.

Results of Morning Catches of Anophelines at Wo Li Hop and Surroundings.

Month during which catching took place.	No. of mornings when catchings took place.	SPECIES.									
		A. Minimus.		A. Jeyporiensis.		A. Maculatus.		A. hyrcanus.		A. Splendidus.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January	4	...	59	...	160	...	11	...	16	...	...
February	4	...	87	...	102	...	39	...	43	...	...
March	6	...	56	...	134	...	37	...	27	...	2
April	6	...	73	...	149	...	56	...	13	...	...
May	11	...	118	...	122	...	117	...	17	...	1
June	13	...	57	...	99	...	57	...	1	...	...
July	7	...	7	...	24	...	13	...	2	...	...
August	12	...	27	...	148	...	72	...	...	...	1
September	9	...	25	...	148	...	68	...	...	...	1
October	8	...	33	...	79	...	73	...	4	...	...
November	7	...	28	...	71	...	48	...	29	...	...
December	4	...	7	...	6	...	11	...	...	...	...
Totals	91		577	...	1,242	...	602	...	152	...	5

Table XVIII.

Result of Dissections for Malarial Infection of Anophelines caught at Wo Li Hop Village and Surroundings.

Month	Species	No. of dissections	No. with infected glands only	No. with infected midgut only	No. with infected glands and midgut	Percentage of infection
January ...	A. minimus.....	57	...	...	1	1.75
	A. jeyporiensis....	154	...	...	...	...
	A. maculatus.....	11	...	...	...	...
	A. hyrcanus	15	...	...	...	...
	A. splendidus	...	...	...	...	...
February...	A. minimus.....	82	...	...	...	...
	A. jeyporiensis....	95	...	...	...	...
	A. maculatus.....	37	...	...	...	...
	A. hyrcanus	38	...	...	...	...
	A. splendidus	...	...	...	...	...
March	A. minimus.....	52	...	1	1	3.85
	A. jeyporiensis....	134	1	...	...	0.75
	A. maculatus.....	35	...	...	...	...
	A. hyrcanus	26	...	...	...	...
	A. splendidus	2	...	...	...	...
April	A. minimus.....	57	...	...	1	1.75
	A. jeyporiensis....	134	...	1	...	0.75
	A. maculatus.....	46	...	...	...	...
	A. hyrcanus	12	...	...	...	...
	A. splendidus	...	...	...	...	...
May	A. minimus.....	82	2	...	...	2.29
	A. jeyporiensis....	104	...	...	...	...
	A. maculatus.....	83	...	...	...	...
	A. hyrcanus	12	...	...	...	...
	A. splendidus	1	...	...	...	...
June	A. minimus.....	45	...	...	...	...
	A. jeyporiensis....	46	...	...	...	...
	A. maculatus.....	33	...	...	...	...
	A. hyrcanus	...	...	...	...	...
	A. splendidus	...	...	...	...	...
July	A. minimus.....	6	...	...	...	...
	A. jeyporiensis....	17	...	...	...	...
	A. maculatus.....	13	...	...	...	...
	A. hyrcanus	1	...	...	...	...
	A. splendidus	...	...	...	...	...
August	A. minimus.....	19	...	...	...	...
	A. jeyporiensis....	80	1	...	...	1.25
	A. maculatus.....	47	...	1	...	2.12
	A. hyrcanus	...	...	...	...	...
	A. splendidus	1	...	...	...	...
September..	A. minimus.....	21	...	2	...	9.52
	A. jeyporiensis....	107	...	8	4	11.23
	A. maculatus.....	50	...	2	...	4.00
	A. hyrcanus	...	...	...	...	...
	A. splendidus	1	...	...	...	...
October.....	A. minimus.....	17	...	...	...	...
	A. jeyporiensis....	59	...	1	1	3.39
	A. maculatus.....	66	...	...	...	...
	A. hyrcanus	4	...	...	...	...
	A. splendidus	...	...	...	...	...
November..	A. minimus.....	22	1	...	...	4.55
	A. jeyporiensis....	57	...	...	...	...
	A. maculatus.....	47	...	...	...	...
	A. hyrcanus	19	...	...	...	...
	A. splendidus	...	...	...	...	...
December...	A. minimus.....	5	...	...	...	...
	A. jeyporiensis....	4	...	...	...	...
	A. maculatus.....	8	...	...	...	...
	A. hyrcanus	...	...	...	...	...
	A. splendidus	...	...	...	...	...
Totals.....	A. minimus.....	465	3	3	3	1.94
	A. jeyporiensis....	991	2	10	5	1.72
	A. maculatus.....	476	...	3	...	0.63
	A. hyrcanus	127	...	...	...	...
	A. splendidus	5	...	...	...	...

Table XIX.

Results of Dissections for Larval Filaria of Mosquitoes caught at Various Places.

Locality	Species	No. of dissections	No. of infections.	Percentage of infection
Shing Mum Camp	A. minimus	775	1	0.13
	A. jeyporiensis..	4,166	9	0.22
	A. maculatus ...	900	3	0.33
	A. hyrcanus ...	5,245	4	0 77
	A. splendidus...	48	1	2.08
	A. karwari	4	...	...
Wo Li Hop Village.	A. minimus	465	...	...
	A. jeyporiensis..	991	1	0.10
	A. maculatus ...	468	...	...
	A. hyrcanus ...	135	...	...
	A. splendidus...	.5	...	...
	A. karwari	...	...	...
Wong Chok Hang Village.	A. minimus ...	1,980	19	0.96
	A. jeyporiensis..	56	...	...
	A. maculatus ...	91	...	...
	A. hyrcanus ...	30	...	...
	A. splendidus...	...	...	...
	A. karwari	...	...	...

1934

SHINGMUN

SCALE: 8 INCHES=1 MILE.

REFERENCES

WIDE STREAM

NARROW

PATH

AQUEDUCT

TUNNEL

CULTIVATED AREA

VILLAGE HOUSE

TAI MO SHAN

HO PUI

SHING MUN

P.W.D. DAM

PINEAPPLE PASS

PINEAPPLE PASS DAM

SHING MUN

WO LI HOP

ACCESS ROAD

EUROPEAN QUARTERS

GORGE DAM

SHING MUN

WOLFRAM MINING MATSHEDS

CODLIE LINE

CODLIE LINE

NEW LINES

SHEUNG KWAI CHUNG

2 IN CIRCLE

3 IN CIRCLE

SMUGGLERS RIDGE

4 IN CIRCLE

SHING MUN

FROM TSUN WAN

TO LAI CHI KOK

GIN DRINKER'S BAY

Appendix C.

GOVERNMENT LABORATORY.

Report of work done during the year 1934

by

Mr. A. Jackson—Actg. Government Analyst.

1. The work of the Laboratory can be divided into three main classes.

(1) Official Work, i.e. work for other Government Departments and for which the Laboratory primarily exists.

(2) Semi-official Work, i.e. work done by the Laboratory by virtue of its being a Government Department, e.g. work from the Naval & Military Authorities etc. Fees are charged for this work. In the case of the Naval and Military Authorities the work is charged at half rate only.

(3) Unofficial Work, i.e. work done by the Laboratory for outside firms in competition with private consulting analysts and for which full fees are charged.

2. The total number of analyses dealt with under all these heads for the year 1934 was 3,728 against 3,296 for 1933.

3. The following tables show the nature of the work under the three heads.

Official Work.

	1933.	*1934.*
Chemico-Legal Sample, from the Police & Medical Departments	227	171
Food & Drug Samples under the Ordinance from the Sanitary Department	104	139
Water Samples, from Public Supplies	1,372	2,014
Dangerous Goods under the Ordinance from the Police Department and Fire Brigade	33	10
Bio-chemical Examinations, from the Medical Department & University	254	166
Materials from various Departments for testing:—		
Oils from P. W. D.	10	22
Coals from P.W.D., Harbour Department & K. C. R.	201	232
Building Materials from P. W. D.	4	4
Foodstuffs from Medical Department	14	76
Pharmaceutical Samples from Government Apothecary	6	7
Chemicals from Medical Department, P. W. D., etc.	10	26
Battery Acids from P. W. D.	4	3
Mineral & Metals	0	5
Miscellaneous Investigations	22	11
	2,261	2,886

4. Value of work done for Government Departments as determined under the Tariff of Fees (Government Notification No. 887 of 1932) was $46,985.00 against $38,815.00 for 1933.

Semi-official Work.

	1933.	*1934.*
Pharmaceutical Analyses under the Pharmacy & Poisons Ordinance.....	19	12
Food & Drugs under Section 11 of the Sale of Food & Drugs Ordinance.....	1	3
Examination of Steamer Tanks for Inflammable Vapour	84	43
Materials from Naval & Military Authorities for testing:—		
Foodstuffs	10	58
Water (Distilled)	4	3
,, (Well)	0	1
Coals	11	2
Oils (Fuel, Kerosene & Petrol)	22	30
Battery Acid	33	53
Chemicals	1	0
Metal	0	1
Miscellaneous	1	0
	186	206

Value of work done under this head was $4,714.75 as against $5,420.00 for 1933.

Unofficial Work.

	1933.	*1934.*
Foodstuffs	118	93
Bio-chemical Examinations	1	1
Water Samples	24	22
Building Materials	8	10
Oils, Fats & Waxes, including petroleum products	181	61
Minerals & Metals	462	406
Dangerous Goods	6	9
Chemicals	16	13
Fertilizers	16	7
Miscellaneous	17	14
	849	636

Value of work done under this head was $30,111.00 as against $39,488.50 for 1933.

Official Work—Chemico-Legal Samples.

5. The following table shows the nature of the work done under this head.

	1933.	*1934.*
Toxicological Examinations	91	135
Articles connected with corrosive fluid throwing	5	0
Counterfeit coin materials	20	12
Counterfeit note materials	80	0
Bombs and explosives	15	3
Articles for stains	9	2
Articles for fire enquiries	0	11
Dangerous Goods	0	1
Well water	1	0
Other examinations	6	7

6. Apart from the poisoning cases mentioned elsewhere, there are only two cases of interest under this head. The first was the examination of cartridges containing a lachrymatory substance. These cartridges could be fired from an ingenious pistol shaped like a fountain pen. These exhibits were used in an armed robbery.

7. The other case was the examination of a sample of urine from a man who was later accused of murder. The accused was alleged to have taken alcohol previous to committing the crime; alcohol was found to be present in the urine.

Toxicological Examinations.

Nature of poison.	*No. of samples.*
No poison found	35
Opium	26
Barbituric acid hypnotics	6
Hydrocyanic acid or cyanide	5
Veronal	6
Phenolic or cresolic compounds	22
Morphine	2
Salicylic acid	3
Zinc oxide	1
Chloroform	1
Gelsemium Elegans Benth	2
Arsenic	16
Chloral hydrate	1
Animal toxins	6
Mineral oil	1
Alkaloid	1
Alcohol	1
Total	135 Samples

8. A large increase in the amount of this work has to be noted. For suicidal purposes, poisons of the lysol type were used in a greater number of the cases than in previous years, but opium was again the favourite agent. The following list regarding the use of opium and phenolic compounds for suicidal purposes is of interest.

	1930.	*1931.*	*1932.*	*1933.*	*1934.*
Opium	11	28	21	17	26
Phenolic compound	1	1	2	11	22

9. Gelsemium Elegans Benth, a well known Chinese herbal poison was used in two cases. The last case of poisoning by this herb occurred in 1929. In each case the deceased had apparently chewed the leaves of the plant.

10. Arsenic was used in one case of suicide and in a case of suspected murder. In both cases the arsenic was a native mineral consisting almost entirely of pure arsenious oxide.

Food & Drugs.

11. The table below gives the details of the Food & Drug Samples submitted by the Sanitary Department under the Ordinance.

Substance.	No. of Samples Exam'd.	No. found genuine.	No. found adulterated.
Bread	7	7	0
Butter	7	7	0
Cheese	3	3	0
Flour	12	11	1
Ghee	15	11	4
,, (Vegetable)	1	1	0
Lard	2	2	0
Milk, condensed	2	2	0
,, fresh	84	76	8
Purico	2	2	0
Peanut oil	3	3	0
Sugar	1	1	0
Totals.....	139	126	13

12. In the autumn Inspectors from the Sanitary Department were allotted to the Island and Mainland to deal solely with the question of poor quality and adulteration of foodstuffs. As a result of this the percentage of samples found to be adulterated has increased from approximately 3% to 10% which tends to show that more control should be exercised.

13. The samples arrive in the Laboratory at in-frequent intervals and usually in batches of six or more. A number of similar foodstuffs is easier to handle quickly in the Laboratory than a miscellaneous collection but this method of sampling cannot be regarded as a reliable safeguard on the quality of goods supplied to a purchaser. Normally at least 60 samples should be submitted weekly for analysis and those of as variegated a nature as possible.

14. Several prosecutions were undertaken by the Sanitary Department as a result of analyses carried out here. One of the most important was for an adulterated ghee. This case was useful as it raised the question of the quality of ghee supplied to the Police Department. A note on this is to be found elsewhere in this report. Difficulties arise in these prosecutions through the absence of standards for foodstuffs other than milk. These difficulties will be removed when the new Food & Drugs Bill becomes operative.

Water Samples.

15. More work under this head is to be reported and again the chemical examination of local water supplies shews them to be above reproach.

16. During the autumn a detailed examination of 50 wells and water from them was carried out in conjuction with the Sanitary Department. These waters are used in the manufacture of preserved fruits, noodles &c. by food factories situated in Kowloon City and elsewhere. From a chemical examination only three or four of these waters could be said to be free from gross sewage pollution. In many cases the so-called wells were little better than cess-pools and no attempts to keep them in a sanitary condition appeared to have been made by the proprietors.

Dangerous Goods.

17. These were samples of oils from lighters, etc. for flash point, and explosives for identification in connection with the enforcement of the Ordinance.

Bio-Chemical Examinations.

Blood for blood urea nitrogen and blood sugar	15	samples.
,, ,, ,, urea nitrogen	33	,,
,, ,, ,, sugar	21	,,
,, ,, ,, Calcium and blood sugar	1	,,
,, ,, carbon monoxide	2	,,
Urine	64	,,
Vesical Calculus	22	,,
Stool	6	,,
Human Milk	1	,,
Cerebral Spinal Fluid	1	,,
Total	166	samples.

18. A diminution in the number of these samples took place during the year. The investigation of the nature of various stones removed from the human bladder by the Professor of Surgery to the University, has been continued by the complete analysis of a further 22 samples.

Materials from Government for Testing.

19. There has been a slight increase in the number of samples of materials submitted by Government Departments for testing. It is to be regretted that some departments do not make more use of this Laboratory to ensure that Government receives genuine materials. Last year four paint samples were submitted—of which only one was genuine—yet this year only a further four samples were submitted. In this connection, a case occurred during the year in which inferior paints were put up in old tins of a reputable proprietory brand. On analyses done by this Laboratory the vendors were successfully prosecuted by the local agents for the brand in question.

20. An example of the value of this Laboratory in this respect is shewn by the examination of ghee samples for the Police Department. In the spring complaints were made that the ghee supplied to the Indian Police officers was not of first grade quality as demanded by the contract. Samples were submitted here and the figures showed that the ghee was either adulterated or of very poor quality. The cancellation of the contract was under consideration. A standard for first quality ghee, based on the Indian standards, was fixed by this Dept. Samples of the ghee issued now are analysed about every ten days. It is to be reported as a result that the ghee now supplied is consistently of good quality.

21. More fumigation work with Hydrocyanic Acid gas has been carried out on books and documents for the Law Courts and Colonial Secretary's Office. The fumigations appear to be successful in keeping down the attacks of insects on books and are much quicker, more efficient and cheaper to carry out than varnishing with a protective paint.

22. During the year every consignment of coal for the Harbour Department and the P. W. D. were sampled and tested in order to arrive at the price to be paid to the contractor.

Semi-official Work.

23. The tanks of 43 ships were tested for inflammable vapour with the Clowes Redwood apparatus. The majority of the other work under this head was for the Naval & Military Authorities. The investigation in connection with corrosion of Recuperator and Buffer systems of guns was carried on during the year.

24. Examination of the Davis Escape apparatus was periodically carried out for the Naval Authorities. Tests were made of the percentage of hydrogen in the atmosphere of submarine battery rooms during charging.

25. A large increase in the amount of foodstuffs examined for the Naval & Military Authorities took place during the year. The number of samples being about half that submitted for examination under the Food & Drugs Ordinance. A similar proportion of samples of foodstuffs to civilian population would involve the examination of approximately 4,000 samples a year instead of the present 139 samples.

Unofficial Work.

26. There has been a decline in the number of samples submitted to the Laboratory under this head, chiefly due to the resumption of work in one of the outside laboratories.

27. Wolfram ore and refined tin are two thirds of the total number of unofficial samples. The actual amount of tin sampled and analysed was 3,837 tons, the value of which was about £1,380,000 sterling.

Sampling.

28. The following list gives the amount of sampling done by the Sampler attached to the Laboratory.

Tin	3,837	tons.
Wood Oil	300	,,
Teaseed Oil	122	,,
Cassia Oil	110	drums.
Anise Oil	30	,,
Lard	35,844	cases.
Citric Acid	1	cask
Firecrackers	30	cases.
Water Samples	1,852	samples.

Special Investigations.

29. Further work has been carried out on the use of fumigants for the destruction of insect life in flour. Also, as mentioned elsewhere, an investigation is being carried out to determine the composition of the Urinary Stones found locally.

Staff & Equipment.

30. Mr. Branson, Government Analyst, proceeded on long leave on October 6th, 1934 and Mr. Jackson took over the duties from that date.

Mr. Jackson returned from long leave on August 12th, 1934.

Mr. Edwards was on leave during March, April & May and Mr. Loie during June, July & August.

31. The wind furnace for dealing with assay work, has been a great boon as this type of work is increasing.

32. The provision of forced draught in the main laboratory has not been successful. The difficulty would appear to be in the narrow and winding flues, which, originally built for ordinary fireplaces, offer too much resistance to any system of forced or suction draught.

33. A large constant temperature bath, with electric heating and thermostatic control, was constructed by the P. W. D., and has proved to be a necessary piece of apparatus to the Laboratory.

Revenue.

34. The fees paid into the Treasury during the year amounted to $32,968.75 as against $42,347.50 in 1933. The value of the work done both Government and commercial, as determined from the Tariff of Fees (Government Notification No. 887 of 1932) was $81,014.75 as against $84,723.50 in 1933.

EXPENDITURE FOR 1933 AND 1934 COMPARED.

	1933.	*1934.*
Personal Emoluments	$46,109.87	$39,150.42
Other Charges:—		
Apparatus & Chemicals	4,162.13	3,838.43
Books & Journals	161.69	169.24
Conveyance Allowance	180.00	180.00
Fuel & Light	807.11	797.22
Incidental Expenses	379.13	287.40
Uniforms	133.25	103.50
Other charges total	$5,823.31	$5,375.79

REVENUE FOR 1933 AND 1934 COMPARED.

Head of Revenue.	*1933.*	*1934*
Analyses	$42,347.50	$32,968.75

EXPENDITURE AND REVENUE FOR THE PAST TEN YEARS.

Year.	*Expenditure.*	*Revenue.*
1925	$36,626.42	$23,000.00
1926	34,776.52	16,422.50
1927	37,442.88	16,146.00
1928	29,333.98	15,562.00
1929	35,290.43	24,974.00
1930	44,677.95	19,891.50
1931	57,341.16	19,295.50
1932	50,746.44	30,604.00
1933	52,494.16	42,347.50
1934	44,526.21	32,968.75

APPENDIX D.

UNIVERSITY CLINICAL UNITS AT THE GOVERNMENT CIVIL HOSPITAL.

MEDICAL UNIT—Report by the Professor of Medicine.

PROFESSOR WILLIAM I. GERRARD, O.B.E., M.D., Ch.B., M.R.C.P. (Lond.), D.P.H.

Acting Professor of Medicine:—(Period March-December, 1934) D. J. VALENTINE, M.C., M.B., B.S., D.T.M. & H.

Cases treated as In-patients in the University Medical Wards:—

Men	245
Women	108
Children under 12	53
Total	406

Number of cases died	28
Number of cases died within 24 hours after admission into hospital	9
Total deaths	37

Cases treated as out-patients at the University Medical Out-patient Clinics:—

1. Morning Clinic (General Medical Cases) Thursdays and Saturdays:—

   1,307 cases seen and treated (men, women and children).

2. Afternoon Clinic (General Medical Cases) Mondays and Thursdays:—

   1,438 new cases seen and treated (men, women and children): many of these cases attended more than once, bringing to a total of 7,385 cases.

3. Children's Clinic, Thursday mornings:—

   413 new cases seen and treated: many of these cases attended more than once, bringing to a total of 1,616 cases.

The total of cases seen and treated by the Medical Unit at Outpatients Department during the year 1934 was 10,308 (this figure included old and new cases, men, women and children).

The following special tests have been carried out:—

From January-December, 1934.

No. of Blood Urea done	68
No. of Blood Sugar done	14
No. of Blocd Sedimentation Rate Tests done	320
No. of Test Meals done	94

These special investigations are being continued.

Opium Addicts.

During the year 56 were admitted. Treatment has been on previous lines and immediate results have been good. No cases have returned for re-admission with the result that reliable information as to relapse cannot be obtained.

Clinical research on the gastric function of addicts is being continued and results so far show, almost without exception, a condition of hyperchlorhydria and pylorospasm.

Pulmonary Tuberculosis and Artificial Pneumothorax.

Towards the end of 1933 the Medical Unit instituted a special clinic for cases suitable for treatment by Artificial Pneumothorax. Since that time the number of cases has rapidly increased and the Chinese patients keep up attendance for refills in a most encouraging way.

This advance in the control of Pulmonary Tuberculosis is most important for the Colony. It is the most practical and economical means of dealing with the large proportion of early cases. Most of our cases continue at work and attend at regular periods for refills.

SURGICAL UNIT—Report by the Professor of Surgery.

Professor Kenelm H. Digby, M.B., B.S., F.R.C.S. (England).

The number of cases treated as In-patients in the University Surgical Wards are as follows:—

Men	248
Women	145
Children under 13	94

703 surgical operations under anaesthesia were performed.

The Out-patient attendance in the Surgical Clinic (including Ear, Nose and Throat and Orthopædics) numbered 3,510.

There were also 2,469 new patients who attended the Ophthalmic Out-patients Clinic.

A new building has been completed at the University for the teaching and study of surgery in conjunction with the Surgical Unit. A clinical museum is being developed and facilities for surgical investigations will be available.

Certain diseases of surgical interest are seen with unusual frequency in the Government Civil Hospital, namely:—

Nasopharyngeal Carcinoma,
Intrahepatic Stone Formation,
Primary Carcinoma of the Liver.

Three papers on these subjects were read at the Ninth Congress of the Far Eastern Association of Tropical Medicine which was held in Nanking from October 1st to 7th.

OBSTERICAL AND GYNAECOLOGICAL UNIT.

Report by the Professor of Obstetrics and Gynaecology,

PROFESSOR R. E. TOTTENHAM, B.A., M.D., Ch.B., F.R.C.P.I., L.M., D.P.H., F.C.O.G.

Statistics of Maternity Cases in the Maternity Block, G.C.H.

Total admissions	728
Total number of deliveries	682
Number of maternal deaths	1
Number of stillbirths	28
Total admissions of M.O. cases	139
Total number of deliveries	123
Classification of Cases:—	
Vertex Presentations	647
P.O.P.	7
Breech	21
Transverse	2
Twins	3
Moles	2
Total	682

Number and Nature of Abnormal Cases.

Placenta Praevia	4
P.P.H.	14
Prolapse of cord	2
Hydramnios	4
Eclampsia	3
Vesicular Mole	2
Twins	3
Forceps	20
Manual Removal of Placenta	3
Caesarian Section	4
Internal Version	2
Bipolar Version	1

The maternal death occurred after Caesaren Section on a patient suffering from general oedema and bronchitis. Spinal anaesthesia was used.

Attendances of Ante-natal Clinics 160

Statistics of Gynaecological Department 1934.

Number of admissions	141
Number of operations performed	102
Number of cases treated without operations	39
Total number of Attendances of Out-patients Department	1,731
Deaths	3

Causes of death:—

1 Malignant Ovarian Cyst.

1 Fibromyoma.

1 Intestinal Colic.

Return of Diseases and Deaths (In-Patients) for the Year 1934.

APPENDIX E. APPENDIX F.

Diseases.	GOVERNMENT HOSPITALS.					CHINESE HOSPITALS.				
	Remaining in Hospital at end of 1933.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1934.	Remaining in Hospital at end of 1933.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1934.
I.—*Infectious and Parasitic Diseases.*										
Typhoid Fever	4	84	14	88	3	1	61	30	62	1
Paratyphoid fevers	...	3	...	3	...	...	...	...	...	...
Relapsing Fever	...	4	...	4	...	...	...	...	...	...
Small-pox :—										
(*a*) Variola major	...	7	...	7	...	...	47	18	47	...
Measles	...	70	1	70	...	...	18	8	18	...
Scarlet Fever	...	1	...	1	1	...	...	...	...	...
Whooping Cough	...	3	...	3	...	2	5	...	7	...
Diphtheria	2	39	15	41	4	...	82	55	82	8
Influenza	6	674	...	680	7	31	983	59	1,014	10
Dysentery :—										
(*a*) Amœbic	...	19	...	19	...	8	100	39	108	1
(*b*) Bacillary	1	133	6	134	...	1	71	30	72	3
(*c*) Other or unspecifieded	...	5	1	5	5	1	271	69	272	9
Erysipelas	...	3	1	3	...	...	16	1	16	...
Acute Poliomyelitis	...	...	...	...	...	...	11	4	11	...
Encephalitis Lethargica	...	...	...	...	...	...	4	3	4	...
Cerebro-spinal fever	2	23	11	25	...	...	174	78	174	...
Rabies	...	4	4	4	...	...	...	...	...	...
Tetanus	...	3	2	3	...	...	43	36	43	...
Tuberculosis (All Forms).										
Tuberculosis of the respiratory system	13	243	35	256	22	85	1,903	1,095	1,988	113
Tuberculosis of the Central Nervous System	...	11	11	11	...	...	182	127	182	4
Tuberculosis of the Intestines or Peritoneum	...	11	3	11	...	1	51	22	52	1
Tuberculosis of the Vertebral Column	2	13	2	15	...	...	22	...	22	...
Tuberculosis of other Bones and Joints	5	32	...	37	2	3	70	6	73	17
Tuberculosis of the skin or Subcutaneous tissue (lupus)	...	1	...	1	...	...	7	...	7	...
Carried forward	35	1,386	106	1,421	44	133	4,121	1,680	4,254	167

Return of Diseases and Deaths (In-Patients) for the Year 1934.

APPENDIX E. APPENDIX F.

Diseases.	GOVERNMENT HOSPITALS.					CHINESE HOSPITALS.				
	Remaining in Hospital at end of 1933.	Yearly Total.		Total Cases Treated.	Remaining in Hospital at end of 1934.	Remaining in Hospital at end of 1933.	Yearly Total.		Total Cases Treated.	Remaining in Hospital at end of 1934.
		Admissions.	Deaths.				Admissions.	Deaths.		
Brought forward	35	1,386	106	1,421	44	133	4,121	1,680	4,254	167
I.—*Infectious and Parasitic Diseases,—(Continued).*										
Tuberculosis of the lymphatic system (abdominal & bronchial glands excepted)	2	19	...	21	...	7	86	7	93	7
Tuberculosis of the genito-urinary system	2	3	...	5	...	...	1	1	1	...
Tuberculosis disseminated :—										
(*a*) Chronic.....	...	2	...	2	...	...	...	...	...	...
(*b*) Not distinguished as acute or chronic	...	...	...	...	...	...	41	22	41	2
Leprosy	3	9	...	12	2	2	25	1	27	...
Syphilis :—										
(*a*) Congenital	...	5	...	5	...	...	4	4	4	...
(*b*) Tertiary	9	122	4	131	4	12	219	49	231	13
(*c*) Undefined.....	1	5	...	6	...	...	1	...	1	...
Other venereal diseases :—										
(*a*) Gonorrhœal Ophthalmia.....	...	1	...	1	...	...	8	...	8	1
(*b*) Gonorrhœa	7	90	...	97	5	...	92	1	92	6
Purulent infection :—										
(*a*) Septicaemia	...	8	5	8	...	...	...	...	...	...
(*b*) Pyæmia	...	...	...	...	...	...	1	1	1	...
Malaria :—										
(*a*) Benign Tertian	1	201	...	202	3	20	636	92	656	8
(*b*) Quartan	1	18	...	19	1	...	...	...	...	...
(*c*) Sub-Tertian.....	4	227	5	231	4	4	203	62	207	...
(*d*) Cachexia	...	22	...	22	...	8	44	11	52	...
(*e*) Blackwater	...	1	1	1	...	...	...	...	...	...
Ankylostomiasis.....	1	30	...	31	...	...	52	13	52	...
Carried forward.....	66	2,149	121	2,215	63	186	5,534	1,944	5,720	204

Return of Diseases and Deaths (In-Patients) for the Year 1934.

APPENDIX E. APPENDIX F.

Diseases.	GOVERNMENT HOSPITALS.					CHINESE HOSPITALS.				
	Remaining in Hospital at end of 1933.	Yearly Total.		Total Cases Treated.	Remaining in Hospital at end of 1934.	Remaining in Hospital at end of 1933.	Yearly Total.		Total Cases Treated.	Remaining in Hospital at end of 1934.
		Admissions.	Deaths.				Admissions.	Deaths.		
Brought forward.....	66	2,149	121	2,215	63	186	5,534	1,944	5,720	204
I.—*Infectious and Parasitic Diseases,—(Continued).*										
Other Diseases due to helminths :—										
(*a*) Cestodes (Taenia)	...	6	...	6	...	...	...	...	...	...
(*b*) Trematodes (Flukes)	...	8	...	8	...	...	...	...	...	...
(*c*) Nematodes (other than ankystomes)	...	28	...	28	1	1	83	7	84	...
(*d*) Other helminths	1	6	...	7	1	...	9	...	9	2
Mycoses :—										
Sprue	...	10	...	10	...	...	...	...	...	...
Other Infectious or parasitic diseases :—										
(*a*) Varicella	...	7	...	7	...	...	2	...	2	...
(*b*) Mumps	...	5	...	5	1	...	6	...	6	...
(*c*) Dengue	...	4	...	4	...	...	4	1	4	...
(*d*) Glandular fever	1	...	...	1	...	...	...	...	...	...
II.—*Cancer and other Tumours.*										
Cancer or other malignant diseases of the Buccal Cavity, and pharynx...	8	28	2	36	5	...	27	18	27	...
Cancer or other malignant Tumours of the digestive Organs, and Peritoneum :—										
(*a*) Stomach	3	5	3	8	...	3	19	6	22	1
(*b*) Liver (primary)	...	7	4	7	...	...	...	...	...	...
(*c*) Other digestive organs	2	11	2	13	...	...	14	2	14	1
Cancer or other malignant Tumours of the respiratory Organs	..	1	...	1	...	...	...	...	...	...
Carried forward.....	81	2,275	132	2,356	71	190	5,698	1,978	5,888	208

Return of Diseases and Deaths (In-Patients) for the Year 1934.

APPENDIX E. APPENDIX F.

Diseases.	GOVERNMENT HOSPITALS.					CHINESE HOSPITALS.				
	Remaining in Hospital at end of 1933.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1934.	Remaining in Hospital at end of 1933.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1934.
Brought forward.....	81	2,275	132	2,356	71	190	5,698	1,978	5,888	208
II.—*Cancer and other Tumours, —(Continued).*										
Cancer or other malignant Tumours of the uterus	...	40	2	40	...	1	21	7	22	...
Cancer or other malignant Tumours of other Female Genital Organs...	3	11	4	14	...	...	...	...	...	...
Cancer or other malignant Tumours of the Breast	3	3	2	6	...	4	21	6	25	...
Cancer or other malignant Tumours of the Male Genito Urinary Organs.	...	3	1	3	...	...	...	...	...	...
Cancer or other malignant Tumours of the Skin	...	2	..	2	...	...	5	2	5	2
Cancer or other malignant Tumours of Organs not specified	...	30	6	30	2	...	54	4	54	...
Tumours non-Malignant :—										
(*a*) Of Female Genital Organs...	5	62	...	67	...	...	25	1	25	2
(*b*) Of other sites	...	32	3	32	...	...	35	5	35	4
III.—*Rheumatism, Diseases of Nutrition and of Endocrine Glands, and other General Diseases.*										
Rheumatic fever.....	1	1	...	2	...	...	2	...	2	...
Chronic Rheumatism, Osteoarthritis :-										
(*a*) Chronic Rheumatism	...	24	...	24	1	5	85	2	90	7
(*b*) Rheumatoid arthritis, Osteo-arthritis	...	57	...	57	2	6	174	6	180	9
Gout	1	1	...	2	...	...	...	...	...	...
Diabetes mellitus	...	16	2	16	...	...	5	3	5	...
Beri-Beri	1	64	13	65	2	29	522	179	551	14
Carried forward.....	95	2,621	165	2,716	78	235	6,647	2,193	6,882	246

Return of Diseases and Deaths (In-Patients) for the Year 1934.

APPENDIX E. APPENDIX F.

Diseases.	GOVERNMENT HOSPITALS.					CHINESE HOSPITALS.				
	Remaining in Hospital at end of 1933.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1934.	Remaining in Hospital at end of 1933.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1934.
Brought forward.....	95	2,621	165	2,716	78	235	6,647	2,193	6,882	246
III.—*Rheumatism, Diseases of Nutrition and of Endocrine Glands, and other General Diseases,— (Continued).*										
Diseases of the Thyroid and parathyroid Glands :—										
(*a*) Simple goitre	...	3	...	3	...	...	1	...	1	...
(*b*) Exophthalmic Goitre	...	9	...	9	1	...	11	...	11	...
(*c*) Myxœdema, Cretinism	...	...	...	...	...	...	1	...	1	...
Diseases of the Adrenal Glands (excluding tuberculosis)	...	...	...	...	...	...	1	...	1	...
IV.—*Diseases of the Blood and Blood-Forming Organs.*										
Hæmorrhagic conditions :—										
(*a*) Purpura	...	...	...	...	...	...	1	1	1	...
(*b*) Hæmophilia	...	...	...	...	...	...	4	1	4	...
Anæmia, Chlorosis :—										
(*a*) Pernicious Anæmia.....	1	30	1	31	...	5	127	2	132	3
(*b*) Splenic Anæmia	...	3	...	3	2	...	...	...	..	...
Leukæmia, Aleukæmia:—										
(*a*) Leukæmia, Chronic Myeloid.	1	1	...	2	...	...	...	...	...	...
(*b*) Hodgkin's diseases	...	...	...	...	...	...	2	...	2	...
Diseases of the Spleen :—										
(*a*) Banti's disease.....	...	1	...	1	...	...	...	...	...	...
(*b*) Other diseases of Spleen.....	...	2	...	2	...	...	12	1	12	1
Carried forward.....	97	2,670	166	2,767	81	240	6,807	2,198	7,047	250

Return of Diseases and Deaths (In-Patients) for the Year 1934.

APPENDIX E. APPENDIX F.

Diseases.	GOVERNMENT HOSPITALS.					CHINESE HOSPITALS.				
	Remaining in Hospital at end of 1933.	Yearly Total.		Total Cases Treated.	Remaining in Hospital at end of 1934.	Remaining in Hospital at end of 1933.	Yearly Total.		Total Cases Treated.	Remaining in Hospital at end of 1934.
		Admissions.	Deaths.				Admissions.	Deaths.		
Brought forward.....	97	2,670	166	2,767	81	240	6,807	2,198	7,047	250
V.—*Chronic Poisoning.*										
Alcoholism (acute or Chronic).....	...	28	...	28	...	...	2	...	2	...
Chronic poisoning by other organic substances :—										
Opium habit	4	193	2	197	2	13	423	5	436	12
VI.—*Diseases of the Nervous System and Sense Organs.*										
Encephalitis :—										
(*a*) Others	1	10	...	11	...	...	9	1	9	...
Meningitis (not including Tuberculous Meningitis or Cerebro-spinal Meningitis).....	...	2	1	2	...	...	1	1	1	...
Tabes Dorsalis (Locomotor Ataxy)...	2	13	...	15	2	...	2	1	2	1
Other diseases of the Spinal Cord :—										
(*a*) Progressive Muscular Atrophy	1	...	...	1	...	...	...	...	..	...
(*b*) Myelitis of unstated Origin...	...	1	...	1	1	...	...	...	...	...
(*c*) Other diseases	...	...	...	...	...	...	2	2	2	...
Cerebral Hæmorrhage, Apoplexy, etc. :—										
(*a*) Cerebral Hæmorrhage	...	15	15	15	...	20	141	99	161	7
(*b*) Cerebral Embolism and Thrombosis.....	1	6	1	7	...	...	16	6	16	2
(*c*) Hemiplegia and other Paralyses of unstated origin	6	22	...	28	2	6	105	17	111	11
General Paralysis of the Insane	...	11	1	11	...	...	14	4	14	...
Carried forward.....	112	2,971	186	3,083	88	279	7,522	2,334	7,801	283

Return of Diseases and Deaths (In-Patients) for the Year 1934.

APPENDIX E. APPENDIX F.

Diseases.	GOVERNMENT HOSPITALS.					CHINESE HOSPITALS.				
	Remaining in Hospital at end of 1933.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1934.	Remaining in Hospital at end of 1933.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1934.
Brought forward.....	112	2,971	186	3,083	88	279	7,522	2,334	7,801	283
VI.—*Diseases of the Nervous System and Sense Organs,—(Continued).*										
Other forms of Insanity :—										
(*a*) Dementia praecox	6	41	...	47	15	...	7	...	7	...
(*b*) Others	8	13	...	21	...	...	...	...	...	...
Epilepsy	2	28	...	30	3	1	78	18	79	4
Infantile Convulsions (age under 5 years)	...	1	...	1	...	...	53	28	53	1
Other Diseases of the Nervous System :—										
(*a*) Neuritis, Neuralgia	3	42	2	45	4	97	1,493	77	1,590	120
(*b*) Paralysis Agitans	...	3	...	3	...	...	1	...	1	...
(*c*) Others	6	35	...	41	12	...	10	1	10	...
Neurasthenia	...	37	...	37	...	...	27	...	27	1
Diseases of the Eye and Annexa :--										
(*a*) Conjunctivitis	1	40	...	41	2	5	70	...	75	6
(*b*) Trachoma	1	42	...	43	2	22	289	...	311	21
(*c*) Ulcer of Cornea	...	3	...	3	...	...	...	...	...	...
(*d*) Others	...	7	...	7	...	23	350	...	373	166
Diseases of the Ear and Mastoid Sinus :—										
(*a*) Otitis Externa	...	18	...	18	1	...	...	...	...	...
(*b*) Otitis Media	...	11	...	11	1	...	...	...	...	...
(*c*) Otitis Interna	...	4	...	4	...	...	...	...	...	...
(*d*) Mastoiditis	1	9	1	10	3	1	17	3	18	...
VII.—*Diseases of the Circulatory System.*										
Pericarditis	...	2	...	2	...	...	3	1	3	...
Acute Endocarditis :—										
Malignant Endocarditis.....	...	1	...	1	...	...	89	34	89	...
Carried forward.....	140	3,308	189	3,448	131	428	10,009	2,496	10,437	602

Return of Diseases and Deaths (In-Patients) for the Year 1934.

APPENDIX E. APPENDIX F.

Diseases.	GOVERNMENT HOSPITALS.					CHINESE HOSPITALS.				
	Remaining in Hospital at end of 1933.	Yearly Total.		Total Cases Treated.	Remaining in Hospital at end of 1934.	Remaining in Hospital at end of 1933.	Yearly Total.		Total Cases Treated.	Remaining in Hospital at end of 1934.
		Admissions.	Deaths.				Admissions.	Deaths.		
Brought forward.....	140	3,308	189	3,448	131	428	10,009	2,496	10,437	602
VII.—*Diseases of the Circulatory System,—(Continued).*										
Chronic Endocarditis, Valvular disease :—										
Aortic valve disease	2	13	5	15	2	...	129	12	129	5
Mitral valve disease	5	33	4	38	6	11	314	85	325	7
Other valve disease	...	5	3	5	...	1	59	6	60	...
Diseases of the Myocardium :—										
(*a*) Acute Myocarditis	2	3	1	5	...	4	166	141	170	1
(*b*) Myocardial Degeneration ...	...	5	3	5	...	...	...	...	...	...
(*c*) Myocarditis not distinguished as Acute or Chronic	...	6	1	6	...	...	98	75	98	1
Diseases of the Coronary Arteries :—										
Angina Pectoris.....	...	...	...	...	...	...	5	1	5	2
Other diseases of the Heart :—										
(*a*) Disordered action of Heart...	...	9	...	9	...	...	...	...	...	...
(*b*) Other diseases.....	...	2	...	2	...	...	...	...	...	...
Aneurysm	...	2	1	2	...	...	10	...	10	1
Arterio-Sclerosis	...	3	2	3	...	...	20	3	20	...
Gangrene	...	2	...	2	...	...	...	...	...	...
Other diseases of the Arteries	1	...	1	1	...	...	1	...	1	...
Diseases of the Veins :—										
(*a*) Varicose Veins	...	24	...	24	...	...	103	...	103	2
(*b*) Hæmorrhoids	1	45	...	46	4	...	...	...	...	...
(*c*) Varicocele.....	...	2	...	2	...	...	...	...	...	...
(*d*) Other diseases of the Veins .	...	5	...	5	1	...	6	...	6	...
Diseases of the Lymphatic System :—										
Lymphangitis.....	1	80	...	81	4	2	7	...	9	...
Abnormalities of Blood pressure :—										
Arterial Hypertension	...	4	...	4	...	...	...	...	...	...
Carried forward.....	152	3,551	210	3,703	148	446	10,927	2,819	11,373	621

Return of Diseases and Deaths (In-Patients) for the Year 1934.

APPENDIX E. APPENDIX F.

Diseases.	GOVERNMENT HOSPITALS.					CHINESE HOSPITALS.				
	Remaining in Hospital at end of 1933.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1934.	Remaining in Hospital at end of 1933.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1934.
Brought forward.....	152	3,551	210	3,703	148	446	10,927	2,819	11,373	621
VII.—*Diseases of the Circulatory System,—(Continued).*										
Other diseases of the Circulatory System :—										
Others.....	...	4	...	4	...	...	4	...	4	...
VIII.—*Diseases of the Respiratory System.*										
Diseases of the Nasal Fossae and Annexa :—										
Diseases of the Nose.....	...	28	...	28	...	1	42	1	43	1
Diseases of the Accessory Nasal sinuses.....	...	15	...	15	1	...	...	...	...	...
Diseases of the Larynx :—										
Laryngitis	1	12	...	13	...	7	28	...	35	...
Other diseases of the Larynx ...	...	...	...	...	...	...	8	...	8	...
Bronchitis :—										
(*a*) Acute Bronchitis.....	2	128	3	130	1	8	1,009	227	1,017	23
(*b*) Chronic Bronchitis	1	86	1	87	2	34	1,228	375	1,262	17
Broncho-Pneumonia	1	108	59	109	2	12	1,479	1,168	1,491	93
Lobar Pneumonia	3	55	14	58	3	11	471	263	482	1
Pneumonia (not otherwise defined) ...	...	13	...	13	...	...	...	...	...	...
Pleurisy :—										
Empyema	2	6	1	8	1	5	74	17	79	2
Other Pleurisy	...	26	1	26	2	...	...	...	...	...
Congestion and Hæmorrhagic infaret of Lung, etc. :—										
Hypostatic Congestion of Lungs	...	2	1	2	...	...	...	...	...	...
Other diseases	...	4	...	4	...	...	...	...	...	...
Asthma	...	68	...	68	...	12	207	31	219	7
Pulmonary Emphysema.....	...	2	...	2	...	...	2	...	2	...
Carried forward.....	162	4,108	290	4,270	160	536	15,479	4,901	16,015	765

Return of Diseases and Deaths (In-Patients) for the Year 1934.

APPENDIX E. APPENDIX F.

Diseases.	GOVERNMENT HOSPITALS.					CHINESE HOSPITALS.				
	Remaining in Hospital at end of 1933.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1934.	Remaining in Hospital at end of 1933.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1934.
Brought forward.....	162	4,108	290	4,270	160	536	15,479	4,901	16,015	765
VIII.—*Diseases of the Respiratory System,—(Continued).*										
Other disease of the Respiratory System :—										
(*a*) Chronic Interstitial Pneumonia, including occupational disease of the Lung	...	1	...	1	...	...	...	...	...	...
(*b*) Other diseases included under 114 :—										
Gangrene of the Lung	...	5	...	5	2	...	2	1	2	...
Other diseases included under 114b	...	1	...	1	2	...	...	...	...	...
IX.—*Diseases of the Digestive System.*										
Diseases of the Buccal Cavity, Pharynx, etc. :—										
(*a*) Diseases of the Teeth and Gums	3	247	...	250	1	...	9	1	9	...
(*b*) Ludwig's angina	...	...	...	...	...	...	1	1	1	...
(*c*) Diseases of the Tonsils	1	183	...	184	2	...	57	4	57	4
(*d*) Other diseases included under 115	2	72	...	74	...	...	28	...	28	3
Ulcer of the Stomach or Duodenum :—										
(*a*) Ulcer of the Stomach	1	32	2	33	3	...	30	6	30	...
(*b*) Ulcer of the Duodenum	1	23	4	24	1	...	...	...	...	...
Other diseases of the Stomach :—										
Inflammation of the Stomach ...	2	63	...	65	...	9	478	161	487	8
Other diseases included under 118	1	54	...	55	...	7	518	24	525	12
Diarrhœa and Enteritis :—										
(Under two years)	1	70	7	71	1	17	755	483	772	14
Carried forward.....	174	4,859	303	5,033	172	569	17,357	5,582	17,926	806

Return of Diseases and Deaths (In-Patients) for the Year 1934.

APPENDIX E. APPENDIX F.

Diseases.	GOVERNMENT HOSPITALS.					CHINESE HOSPITALS.				
	Remaining in Hospital at end of 1933.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1934.	Remaining in Hospital at end of 1933.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1934.
Brought forward.....	174	4,859	303	5,033	172	569	17,357	5,582	17,926	806
IX.—*Diseases of the Digestive System,—(Continued).*										
Diarrhœa and Enteritis :—										
(Two years and over)										
(*a*) Colitis	1	186	6	187	1	28	1,084	351	1,112	19
(*b*) Otherwise defined	...	19	...	19	...	3	268	38	271	1
Appendicitis	5	80	4	85	5	...	32	5	32	1
Hernia, Intestinal Obstruction :—										
(*a*) Hernia										
Inguinal	3	34	2	37	...	1	94	4	95	10
Strangulated Hernia	...	4	1	4	2	...	...	...	...	...
(*b*) Intestinal Obstruction.....	...	7	6	7	...	...	...	...	...	...
Other diseases of the Intestines :—										
Constipation, Intestinal Stasis ...	4	127	...	131	1	4	204	5	208	12
Others included under 123	...	19	...	19	...	3	50	1	53	4
Cirrhosis of the Liver :—										
Not returned as Alcoholic.....	1	28	7	29	5	6	100	59	106	4
Other diseases of the Liver :—										
Others included under 125										
Amoebic Abscess	1	2	...	3	...	...	11	2	11	...
Hepatitis.....	...	8	...	8	1	...	...	...	...	...
Biliary Calculi :—										
With Cholecystitis.....	...	20	2	20	...	...	2	...	2	...
Other diseases of the Gall Bladder and Ducts :—										
Cholecystitis without record of Biliary Calculi	...	24	1	24	...	...	16	7	16	...
Others included under 127.....	...	3	1	3	...	...	28	9	28	1
Diseases of the Pancreas	...	...	...	...	...	...	4	3	4	...
Peritonitis without stated cause	2	9	4	11	1	...	11	7	11	1
Carried forward.....	191	5,429	337	5,620	188	614	19,261	6,073	19,875	859

Return of Diseases and Deaths (In-Patients) for the Year 1934.

APPENDIX E. APPENDIX F.

Diseases.	GOVERNMENT HOSPITALS.					CHINESE HOSPITALS.				
	Remaining in Hospital at end of 1933.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1934.	Remaining in Hospital at end of 1933.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1934.
Brought forward.....	191	5,429	337	5,620	188	614	19,261	6,073	19,875	859
X.—Non-Venereal Diseases of the Genito-urinary System and Annexa.										
Acute Nephritis	...	5	1	5	...	29	259	44	288	25
Chronic Nephritis	3	51	12	54	10	15	797	230	812	15
Nephritis not stated to be acute or Chronic	...	5	...	5	...	...	...	...	...	...
Other diseases of the Kidney and Annexa :—										
(*a*) Pyelitis	3	10	...	13	...	...	22	8	22	1
(*b*) Other diseases included under 133	...	3	...	3	...	...	...	...	...	...
Calculi of the Urinary passages :—										
(*a*) Calculi of Kidney and Ureter	3	22	...	25	...	...	...	...	...	...
(*b*) Calculi of the Bladder	...	32	...	32	1	2	42	...	44	1
(*c*) Calculi of unstated site	...	1	...	1	...	...	...	...	...	...
Diseases of the Bladder :—										
(*a*) Cystitis	2	12	1	14	1	...	34	4	34	...
(*b*) Other diseases of the Bladder	...	2	...	2	...	...	...	...	...	...
Diseases of the Urethra, Urinary Abscess, etc.	...	26	...	26	.	2	106	9	108	6
Diseases of the Prostate	2	4	...	6	...	...	14	2	14	1
Diseases of the Male Genital Organs:—										
(*a*) Circumcision	...	...	...	...	...	...	10	...	10	..
(*b*) Hydrocele	...	10	...	10	...	...	30	...	30	...
(*c*) Epididymo-Orchitis.	1	36	...	37	2	1	30	...	31	...
(*d*) Paraphimosis	...	6	...	6	...	...	30	...	30	...
Diseases of the Female Genital Organs :—										
Diseases of the Ovary	2	23	...	25	...	...	6	1	6	...
Diseases of the Fallopian Tube...	1	60	...	61	2	1	18	2	19	...
Carried forward.....	208	5,737	351	5,945	204	764	20,659	6,373	21,323	908

Return of Diseases and Deaths (In-Patients) for the Year 1934.

APPENDIX E. APPENDIX F.

Diseases.	GOVERNMENT HOSPITALS.					CHINESE HOSPITALS.				
	Remaining in Hospital at end of 1933.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1934.	Remaining in Hospital at end of 1933.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1934.
Brought forward.....	208	5,737	351	5,945	204	764	20,659	6,373	21,323	908
X.— *Non-Venereal Diseases of the Genito-urinary System and Annexa, —(Continued).*										
Diseases of the Female Genital Organs :— *(Continued).*										
Diseases of the Parametrium.....	...	7	...	7	...	...	6	...	6	...
(*a*) Diseases of the Uterus	3	182	...	185	3	1	35	2	36	1
(*b*) Diseases of the Breast	...	17	1	17	...	1	31	1	32	...
(*c*) Other diseases of the Female Genital Organs	1	22	...	23	...	...	80	1	80	2
XI.— *Conditions Arising in Pregnancy, Childbirth and the Puerperal State.*										
Post-Abortive Sepsis										
Septic Abortion	...	6	3	6	...	...	22	6	22	...
Abortion not returned as Septic :—										
Hæmorrhage following Abortion.	...	16	...	16	...	...	9	...	9	...
Without record of Hæmorrhage...	...	68	...	68	...	...	...	...	...	...
Ectopic Gestation	...	8	1	8	1	...	6	2	6	...
Other accidents of Pregnancy	...	42	1	42	1	...	79	8	79	...
Puerperal Hæmorrhage :—										
(*a*) Placenta Praevia.....	...	15	..	15	...	...	...	...	...	...
(*b*) Other Puerperal Hæmorrhage	...	81	...	81	...	...	19	6	19	...
Puerperal Sepsis :—										
Puerperal Septicæmia & Pyæmia	...	12	1	12	...	...	24	10	24	...
Puerperal Albuminuria and Convulsions :—										
Puerperal Convulsions	...	12	1	12	...	...	37	7	37	...
Carried forward.....	212	6,225	359	6,437	209	766	21,007	6,416	21,673	911

Return of Diseases and Deaths (In-Patients) for the Year 1934.

APPENDIX E. APPENDIX F.

Diseases.	GOVERNMENT HOSPITALS.					CHINESE HOSPITALS.				
	Remaining in Hospital at end of 1933.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1934.	Remaining in Hospital at end of 1933.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1934.
Brought forward.....	212	6,225	359	6,437	209	766	21,007	6,416	21,673	911
XI.—*Conditions Arising in Pregnancy, Childbirth and the Puerperal State,—(Continued).*										
Other Toxaemias of Pregnancy :—										
Hyperemesis Gravidarum	...	8	1	8	...	...	...	...	...	...
Puerperal Phlegmasia Alba Dolens, Embolism :—										
(*a*) Puerperal Phlegmasia.....	...	...	...	...	...	...	6	...	6	...
(*b*) Puerperal Embolism	...	1	1	1	...	...	...	...	...	...
Conditions Associated with Labour :—										
Normal Labour	57	2,580	7	2,637	45	64	6,316	...	6,380	97
Other accidents of Childbirth ...	...	5	...	5	...	...	49	6	49	...
Other or unspecified conditions of the Puerperal State :—										
Puerperal Insanity.....	1	13	...	14	...	...	...	...	...	...
Puerperal diseases of the Breast...	...	1	...	1	...	...	...	...	...	...
XII.—*Diseases of the Skin and Cellular Tissue.*										
Carbuncle, Boil	1	153	1	154	1	1	101	17	102	3
Cellulitis, acute Abscess :—										
Cellulitis	12	332	5	344	...	36	261	49	297	18
Acute Abscess	4	208	1	212	7	27	1,223	63	1,250	83
Other Diseases of the Skin and its Annexa :—										
(*a*) Dermatitis	...	13	...	13	...	1	223	...	224	4
(*b*) Eczema.....	...	7	...	7	...	...	...	...	...	...
(*c*) Psoriasis	...	5	...	5	...	...	...	...	...	...
(*d*) Scabies.....	2	64	...	66	2	...	...	...	...	...
(*e*) Dermal Mycoses	...	12	...	12	...	...	...	...	...	...
(*f*) Others	...	54	...	54	...	...	...	...	..	...
Carried forward.....	289	9,681	375	9,970	264	795	29,186	6,551	29,981	111,6

Return of Diseases and Deaths (In-Patients) for the Year 1934.

APPENDIX E. APPENDIX F.

Diseases.	GOVERNMENT HOSPITALS.					CHINESE HOSPITALS.				
	Remaining in Hospital at end of 1933.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1934.	Remaining in Hospital at end of 1933.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1934.
Brought forward.....	289	9,681	375	9,970	264	795	29,186	6,551	29,981	1,116
XIII.—*Diseases of the Bones and Organs of Locomotion.*										
Acute infective Osteomyelitis and periostitis	2	5	1	7	2	...	...	...	...	...
Other diseases of the Bones	1	21	1	22	...	...	...	...	...	...
Diseases of the joints and other Organs of Locomotion :—										
(*a*) Diseases of the Joints.....	5	66	2	71	1	...	2	...	2	...
(*b*) Diseases of other Organs of Locomotion	1	10	...	11	...	...	...	...	...	...
XIV.—*Congenital Malformations.*										
Congenital Malformations :—										
(*a*) Congenital Hydrocephalus...	...	6	2	6	4	...	2	...	2	...
(*b*) Monstrosities	...	1	...	1	...	...	...	...	...	...
(*c*) Other Congenital Malformations	2	40	...	42	3	...	...	...	...	...
Cleft Palate, Harelip.....	...	...	...	...	...	...	12	...	12	1
XV.—*Conditions of Early Infancy.*										
Congenital Debility	...	...	...	...	...	2	80	64	82	2
Premature Birth.....	...	4	...	4	1	...	112	96	112	...
Other diseases Peculiar to early Infancy :—										
Icterus neonatorum	1	...	...	1	...	...	...	..	...	...
Diseases of the umbilicus ...	...	5	...	5	1	...	...	...	...	...
Others included under 161(*c*)	...	...	...	...	...	...	61	50	61	...
Carried forward.....	301	9,839	381	10,140	276	797	29,455	6,761	30,252	1,119

Return of Diseases and Deaths (In-Patients) for the Year 1934.

APPENDIX E. APPENDIX F.

Diseases.	GOVERNMENT HOSPITALS.					CHINESE HOSPITALS.				
	Remaining in Hospital at end of 1933.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1934.	Remaining in Hospital at end of 1933.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1934.
Brought forward.....	301	9,839	381	10,140	276	797	29,455	6,761	30,252	1,119
XVI.—*Old Age.*										
Old Age :—										
(*a*) Senile Dementia	11	58	2	69	10	...	...	...	...	...
(*b*) Other forms of Senile Decay.	...	9	1	9	...	14	414	174	428	15
XVII.—*Affections produced by External Causes.* *Suicide, or Attempted Suicide.*										
By Solid or Liquid Poisons and Corrosive Substances.....	...	113	16	113	...	...	...	...	...	...
By Poisonous Gas	...	2	...	2	...	...	...	...	...	...
By Hanging or Strangulation	...	2	...	2	...	...	3	...	3	...
By Drowning	...	14	1	14	...	...	...	...	...	...
By cutting or Piercing Instruments...	...	...	..	...	...	...	1	...	1	...
By Jumping from high place	...	1	...	1	...	...	3	...	3	...
By Crushing	...	1	...	1	...	...	2	...	2	...
By other means	...	1	...	1	...	...	...	...	...	...
Assault or Homicide, by Firearms ...	...	11	3	11	...	...	...	...	...	...
Assault or Homicide, by cutting or Piercing Instruments.....	4	140	3	144	...	...	...	...	...	...
Attacks by Venomous animals :—										
Snake Bite	...	...	...	...	...	...	1	...	1	...
Insect Bite	...	1	...	1	...	...	1	...	1	...
Food Poisoning	...	13	...	13	...	...	2	...	2	...
Accidental Absorption of Irrespirable or Poisonous Gas	...	1	...	1	...	...	...	...	...	...
Other acute accidental Poisoning.....	1	8	..	9	...	...	23	3	23	...
Injuries due to Conflagration	1	102	15	103	1	...	17	4	17	5
Accidental Burns :— (Conflagration excepted)										
Scalds	1	62	3	63	1	1	31	3	32	1
Burns by Corrosive substances...	...	6	...	6	...	...	...	...	...	...
Carried forward.....	319	10,384	425	10,703	288	812	29,953	6,945	30,765	1,140

Return of Diseases and Deaths (In-Patients) for the Year 1934.

APPENDIX E. APPENDIX F.

Diseases.	GOVERNMENT HOSPITALS.					CHINESE HOSPITALS.				
	Remaining in Hospital at end of 1933.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1934.	Remaining in Hospital at end of 1933.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated.	Remaining in Hospital at end of 1934.
Brought forward.....	319	10,384	425	10,703	288	812	29,953	6,945	30,765	1,140
XVII.—*Affections produced by External Causes,—(Continued).*										
Accidental Mechanical Suffocation ...	...	1	...	1	...	...	...	...	...	...
Accidental Immersion or Drowning ...	...	66	1	66	...	...	2	...	2	...
Accidental Injury by Firearms.....	...	2	1	2	...	...	...	...	...	...
Accidental Injury by cutting or piercing Instruments	...	391	28	391	14	...	89	...	89	...
Accidental Injury by Fall, Crushing, etc.	20	784	67	804	42	...	224	2	224	...
Injury by Animals, (except poisoning by Venomous Animals).....	...	18	...	18	...	...	...	...	...	...
Hunger or Thirst	...	3	...	3	...	...	...	...	...	...
Excessive Heat	...	3	...	3	...	...	2	...	2	...
Lightning	...	1	...	1	...	...	...	...	...	...
Electricity	...	2	...	2	...	...	...	...	...	...
Other unstated forms of Violence :—										
Inattention at Birth	...	...	...	...	...	...	15	5	15	...
Others	11	154	30	165	2	30	444	5	474	42
Violence of an unstated nature (i.e. Suicidal, Homicidal, or accidental)	...	11	1	11	...	...	...	...	...	...
XVIII.—*Ill-Defined Conditions.*										
Cause of death unstated or ill-defined :—										
Heart failure	1	10	...	11	...	...	16	3	16	...
Other ill-defined Causes.....	1	20	1	21	...	10	289	...	299	5
Cause not specified	1	19	...	20	...	...	...	...	...	...
Under Observation	13	717	...	730	8	...	...	...	...	...
TOTAL.....	366	12,586	554	12,952	354	852	31,034	6,960	31,886	1,187

APPENDIX G.

Mortuaries—Return of Diseases for the year 1934.

Diseases.	Male.	Female.
I.—Infectious and Parasitic Diseases.		
Typhoid fever	4	1
Smallpox	47	42
Measles	4	...
Diphtheria	1	2
Dysentery:—		
(*a*) Amœbic	1	...
(*b*) Bacillary	2	1
Cerebro-spinal Fever	19	17
Tetanus	1	...
Tuberculosis of the Respiratory System	145	118
Tuberculosis of the Central Nervous System	10	7
Tuberculosis of the Intestines and Peritoneum	14	7
Tuberculosis of the Vertebral Column	1	1
Lymphatic System	...	1
Disseminated Tuberculosis :—		
(*a*) Acute	49	49
(*b*) Chronic	107	118
Leprosy	2	...
Syphilis:—		
(*a*) Congenital Syphilis	30	23
(*b*) Acquired	17	2
Septicæmia	1	1
Malaria:—		
(*a*) Sub-Tertian	13	2
(*b*) Cachexia	3	...
Carried forward	471	392

Mortuaries—Return of Diseases for the year 1934.

Diseases.	Male.	Female.
Brought forward.....	471	392
I.—Infectious and Parasitic Diseases, (Continued).		
Other Diseases due to Helminths :—		
Ascariasis	1	2
II.—Cancer and Other Tumours.		
Stomach and duodenum	1	...
Liver and Biliary passages	1	...
Pancreas	...	1
Other or Unspecified Organs	1	...
III.—Rheumatism, Diseases of Nutrition and of Endocrine Glands, and other General Diseases.		
Beri-beri	51	5
IV.— Diseases of the Nervous System and Sense Organs.		
Meningitis (does not include C.S.M.) :—		
Pneumococcal	10	3
Septic	2	1
Cerebral Hæmorrhage	...	2
V.—Diseases of the Circulatory System.		
Pericarditis	3	2
Aortic Valve Disease	...	1
Carried forward.....	541	409

Mortuaries—Return of Diseases for the year 1934.

Diseases.	Male.	Female.
Brought forward.....	541	409
V.— Diseases of the Circulatory System,—(Contd.).		
Mitral Valve Disease	1	...
Aortic and Mitral Valve Diseases ...	3	...
Fatty Heart	4	1
Cardiovascular Degeneration	17	...
Diseases of the Coronary Arteries...	1	...
Aneurism	8	4
Arterio-Sclerosis	1	3
Gangrene Cancrumoris	1	1
VI.—Diseases of the Respiratory System.		
Bronchitis:—		
(*a*) Acute Bronchitis	190	223
(*b*) Chronic Bronchitis	5	4
(*c*) Bronchitis not distinguished as Acute or Chronic.....	440	383
Broncho-Pneumonia	180	223
Lobar Pneumonia.....	45	51
Empyema	44	38
Gangrene of the Lung.....	6	6
VII.—Diseases of the Digestive System.		
Ludwig's Angina	1	1
Diarrhœa and Enteritis: – Under two years	314	316
Diarrhœa and Enteritis :— Two years and over.....	6	9
Carried forward.....	1,808	1,672

Mortuaries—Return of Diseases for the year 1934.

Diseases.	Male.	Female.
Brought forward.....	1,808	1,672
VII.—Diseases of the Digestive System,—(Continued).		
Appendicitis	1	...
Strangulated Hernia	3	1
Intussusception	1	2
Cirrhosis of the Liver (Non-alcoholic)	6	...
Amœbic Abscess	...	1
Peritonitis without stated cause	4	...
VIII.—Non-Venereal Diseases of the Genito-Urinary System and Annexa.		
Acute Nephritis	...	1
Chronic Nephritis.....	4	1
IX.—Conditions Arising in Pregnancy, Childbirth and the Puerperal State.		
Septic Abortion.....	...	1
Accidental Hæmorrhage of Pregnancy	...	1
Ectopic Gestation	...	1
Puerperal Septicæmia	...	2
X.—Diseases of the Skin and Cellular Tissues.		
Carbuncle	...	1
Cellulitis	3	...
Acute Abscess	2	1
Carried forward.....	1,832	1,685

Mortuaries—Return of Diseases for the year 1934.

Diseases.	Male.	Female.
Brought forward.....	1,832	1,685
XI.—Congenital Malformations.		
Congenital Hydrocephalus	3	4
XII.—Conditions of Early Infancy.		
Congenital Debility	67	132
Immaturity at Birth.....	18	36
Atelectasis	15	14
Icterus Neonatorum.....	37	29
Pemphigus Neonatorum	6	7
XIII.—Deaths from Violence.		
Suicide by Solid or Liquid Poisons and Corrosive Substances	14	4
Suicide by Hanging or Strangulation.	15	13
Suicide by Drowning	2	...
Suicide by Firearms.....	2	...
Suicide by cutting or piercing Instruments	4	1
Suicide by jumping from high place.	5	3
Homicide by firearms	1	...
Homicide by cutting or piercing Instruments	6	...
Homicide by other means	2	2
Food Poisoning	1	...
Accidental absorption of irrespirable or poisonous gas	1	...
Carried forward.....	2,031	1,930

Mortuaries—Return of Diseases for the year 1934.

Diseases.	Male.	Female.
Brought forward.....	2,031	1,930
XIII.—Deaths from Violence, —(Continued).		
Other Acute Accidental Poisoning (not by gas)	1	2
Conflagrations	12	11
Scald	3	3
Accidental Mechanical Suffocation .	2	2
Accidental Drowning	33	28
Accidental injury by Firearms	3	...
Accidental injury by Cutting or Piercing Instruments	3	1
Accidental injury by Fall, Crushing, etc.	66	14
Excessive Heat	1	...
Electric Shock	2	...
XIV.—Ill-Defined Conditions.		
Heart Failure	111	78
Still Births	85	72
Decomposed *	98	47
Total.....	2,451	2,188

* Sex Not known 21.

APPENDIX H.

REPORT OF THE REGISTRAR GENERAL OF BIRTHS AND DEATHS.

The Births and Deaths Registration Ordinance of 1896, which up to 1911 applied only to the Colony Proper, was in the latter year extended to cover the New Territories.

2. Though applicable to the New Territories little action was taken to enforce compliance with the law until 1932 when the Director of Medical and Sanitary Services became Registrar. In the island of Cheung Chau and in the Police District of Tai O there was a considerable number of registrations but elsewhere in the New Territories there were very few and the Ordinance was more or less a dead letter.

3. In 1932 it was decided to make an attempt to persuade the inhabitants of the New Territories to comply with the law. The results of persuasion were negligible and it was therefore decided to prosecute for failure to comply. Prosecutions had the desired effect, and registration for the first time became the rule rather than the exception.

4. The paucity of registrations has previously made it impossible to calculate death rates and birth rates for the New Territories, but this year more reliable statistics are available.

5. During the past year a new Births and Deaths Ordinance (Ordinance No. 21 of 1934), was passed and whereas the machinery for the registration of Births and Deaths was formerly somewhat complicated, it is felt that the new ordinance has made registration an easier and a less complicated affair.

6. The new ordinance has already caused a marked increase in birth registrations in the whole Colony, particularly in the New Territories. It is hoped that next year's figures will show a further increase.

7. Formerly Chinese could register births and deaths in the district in which they were living but non-Chinese wherever resident were obliged to register at the Registrar's General Register Office in Victoria. This has now been altered, and births and deaths of whatever nationality may be registered at any District Registry.

8. The following are the main alterations in procedure, etc., under the new ordinance:—

(*a*) Information as to births must be given within 14 days instead of within 7 days as under the old ordinance, and post registers have been instituted for the registration of births after 14 days.

(*b*) There is now no fee for late registration of births. Under the old ordinance the fee was $5.00.

(*c*) Any person obtaining registration of the birth of a child is now entitled to receive a free certificate that the birth has been registered. It is hoped that this provision, as well as many others in the ordinance will encourage the registration of births, especially in the New Territories.

(*d*) A certified copy of the entry in the register now costs $1.00, as compared with $2.50 under the old ordinance.

9. Under the new ordinance there still remains the old system of registry offices, *i.e.*, a General Registry Office at the Registrar General's Office in Victoria, and District Registry Offices for Deaths and a separate set of District Registries for Births. In the New Territories there are District Registry Offices for Births and Deaths.

10. Before registering the Registrar or Assistant Registrar must be satisfied that the cause of death given is the true cause and in case of doubt it is his duty to institute or cause to be instituted immediate enquiries with a view to ascertaining the true cause of death.

11. The authorities certifying the cause of death are:—

(*a*) the medical practitioners in attendance during the last illness whether in hospital practice, dispensary practice, or private practice.

(*b*) the Tung Wah, Tung Wah Eastern and Kwong Wah Hospitals for bodies where there has been no registered medical practitioner attending.

(*c*) the Medical Officer of Health for bodies found in houses and for which he is called for diagnosis.

(*d*) the Coroner—for all bodies examined at the Public Mortuaries—including medico legal cases and bodies dumped in the street or left at convents for disposal.

(*e*) the friends and relatives or the police in certain cases.

12. The following table shows the number of deaths certified by the various authorities certifying:—

RETURN OF DEATHS 1934.

Authority certifying cause of death.	Non-Chinese.		Chinese.	
	Number of Cases.	Percentage of the whole.	Number of Cases.	Percentage of the whole.
Medical Practitioner in Attendance ...	221	88.4	10,606	59.8
Medical Officer of Health	3	1.2	155	0.9
Tung Wah Hospital..	—	—	687	3.9
Tung Wah Eastern Hospital	—	—	667	3.8
Kwong Wah Hospital	—	—	974	5.5
Coroner from information received from the M.O. i/c Mortuaries....	26	10.4	4,634	26.1
Total.....	250	—	17,723	—

Deaths Registered in 1934.

Chinese deaths	17,723
Non-Chinese deaths	250
	17,973

The following are death registries:—

Births and Deaths Office, Medical Dept., Victoria.

No. 2 Police Station	Hong Kong Island and Villages.
No. 7 Police Station	
Shaukiwan Police Station	
Stanley Police Station	
Aberdeen Police Station	
Kowloon Death Registry	Kowloon.
Kowloon City Police Station.....	
Shamshuipo Police Station	

Classification of non-Chinese deaths:—

British (3 stillbirths)	79
American	8
French	4
German	3
Netherlands	1
Norwegian	2
Italian	1
Spanish	1
Latvian	1
Portuguese	48
Japanese (1 still-birth)	25
Indian (3 still-births)	58
Malayan	3
Ceylonese	1
Filipino	6
Annamite	3
Eurasian	5
Persian	1
Total	250

There were 231 civilians, 11 army and 8 navy; equal 250 (stillbirths 7).

Classification of non-Chinese births:—

British	176 (8)
American	14
French	4
German	10
Netherlands	3
Norwegian	1
Italian	2
Hungarian	1
Spanish	2
Russian	1
Portuguese	66 (1)
Latvian	2
Jewish	1
Japanese	4
Indian	123 (1)
Malayan	13
Ceylonese	2
Filipino	20 (1)
Siamese	1
Annamite	2
Eurasian	9 (1)
Mauritian	1
Brazilian	2
Peruvian	1
Ecutorian	1
Total	462

( )—Figures for late registrations of births after 12 months.

Classification of sex:—

Female	219
Male	243

There were 12 late registrations of births after 12 months.

Birth Registration in the New Territories.

Total of births registered in 1934 3,564

Classification of sex:—

Male	1,924
Female	1,640
Total	3,564

Northern Territory Registration Districts.	*1931 Census Population.*	*No. of Births Registered.*
Shatin	4,346	137
Taipo	12,684	437
Sha Tau Kok	8,941	321
Sheung Shui	10,208	325
Lok Ma Chau	4,377	144
Au Tau	12,887	515
Ping Shan	12,660	449
Sai Kung	7,585	260
Southern Territory Registration Districts.		
Tsun Wan	5,355	234
Cheung Chau	5,477	560
Tai O (Lantau Island)	7,409	182

Total of population for New Territories.....102,776

Birth Registration is not complete, although since the introduction of the New Births and Deaths Ordinance there has been an appreciable increase in registrations. However, a number of births are never registered and this is especially noticeable in the case of females.

Vaccination.

13. Under the Vaccination Ordinance the guardians of every child born must, unless there be a medical reason to the contrary, furnish to the Registrar General of Births and Deaths a certificate of vaccination, on receipt of which the Registrar General must record the facts in the Births Register. Notices containing advice on this matter are handed to the person registering the birth, and if the person notifying be not the parent notice is also sent by post.

14. If the necessary certificates are not received reminders are sent by post to the parents.

15. The non-Chinese make a good response and the majority of infants are vaccinated. The Chinese on the contrary do not make a good response and the majority of infants remain unvaccinated or at any rate uncertified. The majority of the Chinese are of course working class people who can neither read nor write English or Chinese.

16. Many of these people hold the belief that a child should not be vaccinated until it has experienced two Chinese New Years, which means that one born just after the New Year would be nearly two years old before the propitious time arrives.

17. Under the circumstances very few prosecutions are instituted for neglect to certify as to successful vaccination.

18. The following table shows the position in detail:—

Vaccination return for Registered Children of 1934.

1934	Brought forward Unvaccinated.	New Births.	Total Liable.	Vaccinated.	Dead.	Left Colony.	Cannot be found.	Had Small-pox.	Insusceptible.	Unfit.	Total Carried forward.	Total.
B. & D. (Non-Chinese)..	79	450	529	371	1	27	35	—	6	14	75	529
B. & D. (Chinese)	483	2,250	2,733	648	2	63	69	—	—	15	1,936	2,733
Eastern Chinese Public Dispensary...	1,245	3,061	4,306	1,876	223	565	663	—	—	—	979	4,306
Western Chinese Public Dispensary...	1,490	1,713	3,203	1,836	—	—	206	—	—	—	1,161	3,203
Central Chinese Public Dispensary...	117	1,039	1,156	622	1	39	93	—	—	1	400	1,156
Shaukiwan Chinese Public Dispensary...	128	586	714	322	14	5	258	—	—	—	115	714
Yaumati Chinese Public Dispensary...	2,750	5,780	8,530	5,301	103	46	1,002	—	—	41	2,037	8,530
Hunghom Chinese Public Dispensary...	26	152	178	96	—	—	30	—	—	—	52	178
Kowloon City Chinese Public Dispensary...	148	719	867	423	15	39	245	—	—	3	142	867
Shamshuipo Chinese Public Dispensary...	525	1,078	1,603	972	7	6	74	—	—	2	522	1,603
Aberdeen Chinese Public Dispensary...	52	395	447	42	4	3	317	—	—	—	81	447
Total	7,043	17,223	24,266	12,509	370	793	3,012	—	6	76	7,500	24,266

MAP OF HONG KONG AND NEW LEASED TERRITORY

Furlongs 8 4 0 1 2 3 4 5 6 7 8 9 Miles

KWONG-TUNG PROVINCE CHINA

MIRS BAY

HAU HOI WAN OR DEEP BAY

TOLO HARBOUR

VICTORIA HARBOUR

HONG KONG

KOWLOON

LANTAU

WEST LAMMA CHANNEL

EAST LAMMA CHANNEL

Port Shelter

Tolo Channel

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